



Federal Bureau of Investigation
Washington, D.C. 20535

December 1, 2016

MR. JOHN GREENEWALD, JR.
THE BLACK VAULT

[REDACTED]
[REDACTED]

FOIPA Request Number: 1267112-000
Subject: 80-HQ-789

Dear Mr. Greenewald:

The enclosed documents were reviewed under the Freedom of Information/Privacy Acts (FOIPA), Title 5, United States Code, Section 552/552a. Deletions have been made to protect information which is exempt from disclosure, with the appropriate exemptions noted on the page next to the excision. In addition, a deleted page information sheet was inserted in the file to indicate where pages were withheld entirely. The exemptions used to withhold information are marked below and explained on the enclosed Explanation of Exemptions:

Section 552

☐ (b)(1)

☐ (b)(2)

☐ (b)(3)

☐ (b)(4)

☐ (b)(5)

☒ (b)(6)

☐ (b)(7)(A)

☐ (b)(7)(B)

☒ (b)(7)(C)

☒ (b)(7)(D)

☐ (b)(7)(E)

☐ (b)(7)(F)

☐ (b)(8)

☐ (b)(9)

Section 552a

☐ (d)(5)

☐ (j)(2)

☐ (k)(1)

☐ (k)(2)

☐ (k)(3)

☐ (k)(4)

☐ (k)(5)

☐ (k)(6)

☐ (k)(7)

493 pages were reviewed and 492 pages are being released.

☐ Document(s) were located which originated with, or contained information concerning, other Government Agency (ies) [OGA].

☐ This information has been referred to the OGA(s) for review and direct response to you.

☐ We are consulting with another agency. The FBI will correspond with you regarding this information when the consultation is completed.

☐ In accordance with standard FBI practice and pursuant to FOIA exemption (b)(7)(E) and Privacy Act exemption (j)(2) [5 U.S.C. § 552/552a (b)(7)(E)/(j)(2)], this response neither confirms nor denies the existence of your subject's name on any watch lists.

For your information, Congress excluded three discrete categories of law enforcement and national security records from the requirements of the FOIA. See 5 U.S.C. § 552(c) (2006 & Supp. IV (2010)). This response is limited to those records that are subject to the requirements of the FOIA. This is a standard notification that is given to all our requesters and should not be taken as an indication that excluded records do, or do not, exist. Enclosed for your information is a copy of the Explanation of Exemptions.

For questions regarding our determinations, visit the www.fbi.gov/foia website under "Contact Us."

The FOIPA Request Number listed above has been assigned to your request. Please use this number in all correspondence concerning your request. Your patience is appreciated.

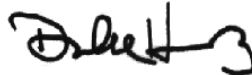
You may file an appeal by writing to the Director, Office of Information Policy (OIP), United States Department of Justice, Suite 11050, 1425 New York Avenue, NW, Washington, D.C. 20530-0001, or you may submit an appeal through OIP's FOIAonline portal by creating an account on the following web site: <https://foiaonline.regulations.gov/foia/action/public/home>. Your appeal must be postmarked or electronically transmitted within ninety (90) days from the date of this letter in order to be considered timely. If you submit your appeal by mail, both the letter and the envelope should be clearly marked "Freedom of Information Act Appeal." Please cite the FOIPA Request Number assigned to your request so that it may be easily identified.

You may seek dispute resolution services by contacting the Office of Government Information Services (OGIS) at 877-684-6448, or by emailing ogis@nara.gov. Alternatively, you may contact the FBI's FOIA Public Liaison by emailing foipaquestions@ic.fbi.gov. If you submit your dispute resolution correspondence by email, the subject heading should clearly state "Dispute Resolution Services." Please also cite the FOIPA Request Number assigned to your request so that it may be easily identified.

☐ The enclosed material is from the main investigative file(s) in which the subject(s) of your request was the focus of the investigation. Our search located additional references, in files relating to other individuals, or matters, which may or may not be about your subject(s). Our experience has shown when ident, references usually contain information similar to the information processed in the main file(s). Because of our significant backlog, we have given priority to processing only the main investigative file(s). If you want the references, you must submit a separate request for them in writing, and they will be reviewed at a later date, as time and resources permit.

☒ See additional information which follows.

Sincerely,



David M. Hardy
Section Chief
Record/Information
Dissemination Section
Records Management Division

Enclosure(s)

In response to your Freedom of Information Act (FOIA) request to the Records Management Division located in Winchester, VA, please find enclosed a processed copy of FBI Headquarters files 80-HQ-789 (Sections 1, 2, and June Mail) and 80-HQ-789-SUB-EBF 128 (Section 1).

The enclosed material represents the final release of information responsive to your Freedom of Information Act (FOIA) request. To minimize costs to both you and the FBI, duplicate copies of the same document were not processed.

The material has been placed on a CD-Rom and is being provided to you at no charge.

EXPLANATION OF EXEMPTIONS

SUBSECTIONS OF TITLE 5, UNITED STATES CODE, SECTION 552

- (b)(1) (A) specifically authorized under criteria established by an Executive order to be kept secret in the interest of national defense or foreign policy and (B) are in fact properly classified to such Executive order;
- (b)(2) related solely to the internal personnel rules and practices of an agency;
- (b)(3) specifically exempted from disclosure by statute (other than section 552b of this title), provided that such statute (A) requires that the matters be withheld from the public in such a manner as to leave no discretion on issue, or (B) establishes particular criteria for withholding or refers to particular types of matters to be withheld;
- (b)(4) trade secrets and commercial or financial information obtained from a person and privileged or confidential;
- (b)(5) inter-agency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the agency;
- (b)(6) personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy;
- (b)(7) records or information compiled for law enforcement purposes, but only to the extent that the production of such law enforcement records or information (A) could reasonably be expected to interfere with enforcement proceedings, (B) would deprive a person of a right to a fair trial or an impartial adjudication, (C) could reasonably be expected to constitute an unwarranted invasion of personal privacy, (D) could reasonably be expected to disclose the identity of confidential source, including a State, local, or foreign agency or authority or any private institution which furnished information on a confidential basis, and, in the case of record or information compiled by a criminal law enforcement authority in the course of a criminal investigation, or by an agency conducting a lawful national security intelligence investigation, information furnished by a confidential source, (E) would disclose techniques and procedures for law enforcement investigations or prosecutions, or would disclose guidelines for law enforcement investigations or prosecutions if such disclosure could reasonably be expected to risk circumvention of the law, or (F) could reasonably be expected to endanger the life or physical safety of any individual;
- (b)(8) contained in or related to examination, operating, or condition reports prepared by, on behalf of, or for the use of an agency responsible for the regulation or supervision of financial institutions; or
- (b)(9) geological and geophysical information and data, including maps, concerning wells.

SUBSECTIONS OF TITLE 5, UNITED STATES CODE, SECTION 552a

- (d)(5) information compiled in reasonable anticipation of a civil action proceeding;
- (j)(2) material reporting investigative efforts pertaining to the enforcement of criminal law including efforts to prevent, control, or reduce crime or apprehend criminals;
- (k)(1) information which is currently and properly classified pursuant to an Executive order in the interest of the national defense or foreign policy, for example, information involving intelligence sources or methods;
- (k)(2) investigatory material compiled for law enforcement purposes, other than criminal, which did not result in loss of a right, benefit or privilege under Federal programs, or which would identify a source who furnished information pursuant to a promise that his/her identity would be held in confidence;
- (k)(3) material maintained in connection with providing protective services to the President of the United States or any other individual pursuant to the authority of Title 18, United States Code, Section 3056;
- (k)(4) required by statute to be maintained and used solely as statistical records;
- (k)(5) investigatory material compiled solely for the purpose of determining suitability, eligibility, or qualifications for Federal civilian employment or for access to classified information, the disclosure of which would reveal the identity of the person who furnished information pursuant to a promise that his/her identity would be held in confidence;
- (k)(6) testing or examination material used to determine individual qualifications for appointment or promotion in Federal Government service the release of which would compromise the testing or examination process;
- (k)(7) material used to determine potential for promotion in the armed services, the disclosure of which would reveal the identity of the person who furnished the material pursuant to a promise that his/her identity would be held in confidence.

DIRECTOR, FBI

February 5, 1963

ATTN: FBI LABORATORY

SAC, CHICAGO

b7D

JUNE

LFPS
Electronics

TELEPHONE COMPANY COOPERATION

b6
b7C

100-41921
[redacted] a valuable source to this office, advised on January 23, 1963, that Cook County Sheriff RICHARD OGILVIE, Chicago, Illinois, [redacted] a "monitoring" device found in a telephone terminal box located in the building occupied by the Sheriff's Office.

b6
b7C
b7D

[redacted] the device in its installed position in the Sheriff's Office building and stated that the installation was made in such a crude manner and with so little attempt apparently to disguise the same, that it was his opinion that it was meant to be found.

He stated further it was his opinion also that the device was probably that constructed by a telephone company employee or former employee, pointing out that materials used were the type utilized by the Bell Telephone Company and that a knot tied in a piece of lacing cord was the exact type presently utilized by Bell Telephone employees in cable lacing.

[redacted] has definite suspicions that one [redacted] a white male, age 22, and [redacted] could have been the person who made this device. [redacted] for the Bell Telephone Company for about [redacted] from the telephone company approximately [redacted]

b6
b7C

- 4 - Bureau (RM)
- (1 - FBI, Laboratory)
- (1 - Latent Fingerprint Section)
- 1 - Package
- 1 - Chicago

LHN:gaa
(6)

100-41921-187

FEB 8 10 55 AM '63

RECEIVED

SAC, Chicago [redacted]

b7D

February 19, 1963

REC-47

Director, FBI (80-789) - 122

1 - Mr. Belmont
1 - Mr. Mohr
1 - Mr. Trotter (Attention: [redacted])
b6
b7C
Sent direct as info

EX-102

TELEPHONE COMPANY COOPERATION

Reurlet 2/5/63, in captioned matter.

The listening device described in referenced letter was examined in the Electronics Section of the Laboratory. The examination indicates that it is made with a standard Bell System condenser, receiver and JKT station wire that have been crudely assembled by someone having access to a Bell System supply room in which parts for subscriber station equipment, subscriber multiline station apparatus equipment and/or Step-by-Step PABX (Private Automatic Branch Exchange) switching equipment are stored. The Western Electric 44A receiver is normally used in Bell System subscriber handsets produced since the introduction of the Western Electric 500 type telephone instruments. The dual .5 mfd condenser unit, Western Electric Model 441C, is normally mounted in "strip" equipment associated with the apparatus used for multiline key telephone instruments or in Step-by-Step central office switching equipment most frequently installed in PABX systems. The light olive gray friction tape is similar in appearance to tape used by the Bell System craftsmen.

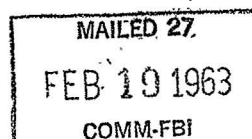
The device can be used for listening on a telephone line. As stated above, this device was crudely assembled and a person using such a device for monitoring telephone conversations was either attempting to attract attention or was not knowledgeable of the present state of the eavesdropping art.

No attempt has been made to restore the device to the condition in which it was received in the Laboratory as it is felt the contributor will want the tape left off to assist them in reviewing the circuit and looking over the equipment. Accordingly the tape has been wrapped on a plastic sheet which sheet has been placed over the condenser.

The results of the latent fingerprint examination have been separately submitted.

Tolson _____
Belmont _____
Mohr _____
Casper _____
Callahan _____
Conrad _____
DeLoach _____
Evans _____
Gale _____
Rosen _____
Sullivan _____

CKC:sfs (11)



(SEE NOTE PAGE 2)

b6
b7C

MAR 8 1963 MAIL ROOM TELETYPE UNIT []

Letter to SAC, Chicago
Re: TELEPHONE COMPANY COOPERATION
80-789

Since the Laboratory cannot formally make an examination for the telephone company, the above observations are being furnished to your office for your information and may be made available orally to your contact in the telephone company on a confidential basis in respect for the cooperation which they have shown your office, if you feel such action desirable.

The listening device is being returned your office via registered mail. //

NOTE:

Device has been examined for latents by [redacted] Latent Fingerprint Section, who advised that Latent Fingerprint Section will handle their reply separately.

b6
b7C

sent 2/20/63

Reg # 715408



FEDERAL BUREAU OF INVESTIGATION

Washington 25, D. C.

REPORT

of the

LATENT FINGERPRINT SECTION

Identification Division

YOUR FILE NO. [REDACTED] b7DFBI FILE NO. [REDACTED]

LATENT CASE NO. 41921

February 14, 1963

TO: SAC, Chicago

EX-102

RE: TELEPHONE COMPANY COOPERATION

REFERENCE: Letter February 5, 1963
 EXAMINATION REQUESTED BY: Chicago
 SPECIMENS: One monitoring device

No latent prints of value developed on the device.

The result of the laboratory examination and the disposition of the submitted specimen are subjects of a separate report.

DEH:bcc

(4) bcc

Tolson _____
 Belmont _____
 Mohr _____
 Casper _____
 Callahan _____
 Conrad _____
 DeLoach _____
 Evans _____
 Gale _____
 Rosen _____
 Sullivan _____
 Tavel _____
 Trotter _____
 Tele. Room _____
 Holmes _____
 Gandy _____

MAILED 5
 FEB 15 1963
 FEB 15 5 21 PM '63

HOW INLET: DYA
 REC'D
 C. J. [initials]

John Edgar Hoover
 John Edgar Hoover, Director

THIS REPORT IS FURNISHED FOR OFFICIAL USE ONLY

MAIL ROOM ☐TELETYPE UNIT ☐

FEDERAL BUREAU OF INVESTIGATION
LATENT FINGERPRINT SECTION WORK SHEET

b7D

Recorded: 2-11-63/10:00am

Reference No: [redacted]

Received: 2-11-63/cbg

FBI File No:

Latent Case No: 41921

80-789-122

Answer to: SAC, CHICAGO

Examination requested by: addressee

Copy to:

RE: TELEPHONE COMPANY COOPERATION

Date of reference communication:

2-5-63

Specimens:

1 monitoring device

Named suspect:

[redacted]

WM dob

[redacted]

b6

b7C

Result of examination:

*No latent prints of value 2/1
Spec forwarded to [redacted]*

Examination by:

[redacted]

b6

Evidence noted by:

b7C

b6

b7C

*Ans'd 2-14-63
DEH:bec*

*Dist 2/12
[signature]*

LF

/ L

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI

DATE: February 5, 1963

ATTN: FBI LABORATORY

FROM : SAC, CHICAGO [redacted]

JUNE

b7D

SUBJECT: TELEPHONE COMPANY COOPERATION

Teasing

[redacted] a valuable source to this office, advised on January 23, 1963, that Cook County Sheriff RICHARD OGILVIE, Chicago, Illinois, [redacted] a "monitoring" device found in a telephone terminal box located in the building occupied by the Sheriff's Office.

b6
b7C
b7D

[redacted] stated that [redacted] the device in its installed position in the Sheriff's Office building and stated that the installation was made in such a crude manner and with so little attempt apparently to disguise the same, that it was his opinion that it was meant to be found.

He stated further it was his opinion also that the device was probably that constructed by a telephone company employee or former employee, pointing out that materials used were the type utilized by the Bell Telephone Company and that a knot tied in a piece of lacing cord was the exact type presently utilized by Bell Telephone employees in cable lacing.

B. APPROX. 19-1

[redacted] has definite suspicions that one [redacted] a white male, age 22, and [redacted] could have been the person who made this device. [redacted] worked for the Bell Telephone Company for about [redacted] and [redacted] from the telephone company approximately [redacted]

b6
b7C
b7D

- 4 - Bureau (RM)
(1 - FBI, Laboratory)
(1 - Latent Fingerprint Section)
1 - Package
1 - Chicago

LHN:gaa
(6)

RECEIVED

LEB 11 15 53 PM '63

EBI
REC'D FEB 2

80-789-122

SEARCHED
SERIALIZED
INDEXED
FILED

[redacted]

With regard to [redacted] has
advised that he was born [redacted] in Chicago, 111
and served in the U. S. Marine Corps, [redacted]

[redacted]

The Chicago Office believes it would be advisable
to determine whether [redacted] was [redacted]

[redacted]

The Chicago Office is therefore requesting an
examination of the aforementioned device by the Latent
Fingerprint Section for any latent prints and if any are
located to compare them with any record of [redacted] on file
at the Identification Division. The Laboratory may also
wish to examine the device which is apparently the receiver
section of a telephone instrument.

The device is not to be considered as evidence,
but should be returned to the Chicago Office with the
results of the latent fingerprint examination.

It is noted that the aforementioned device was
turned over to this office by [redacted] for our confidential
examination and the results of this examination will not
be divulged outside this office. There has been no publicity
regarding the location of this device and [redacted] has advised
he does not contemplate any.

Forwarded under separate cover to the Laboratory
via Parcel Post is the aforementioned device.

SAC, Los Angeles (66-119)

September 1960

ST
C
Director, ~~RFI~~ (80-789)-73

EX 104

TELEPHONE CALL TRACING DEVICE

It is desired that you again contact [redacted] Tele-Signal, 11618 Exposition Boulevard, Los Angeles, to arrange for an Electronics Section engineer, familiar with the Bureau's over-all call tracing problem, to interview him in connection with his developing a call tracing device. It is the purpose of this interview to discuss the technical details, explore the latent possibilities of his device and to see, if such can be arranged, a practical demonstration of the unit.

In addition, the engineer will check the special alarm equipment now in operation in your area.

The interview should be scheduled, and the Bureau advised in time to arrange for appropriate scheduling of assignments and travel arrangements. Your reply should be addressed to the attention of the Electronics Section, FBI Laboratory at an early date.

NOTE: Memorandum [redacted] to Mr. Tamm dated 9-16-60, approved instant trip.

CKC:pcc (6)

Handwritten initials and signature

Handwritten oval and signature

MAILED 25
SEP 28 1960
COMM-FBI

Handwritten signature

- Tolson _____
- Mohr _____
- Parsons _____
- Belmont _____
- Callahan _____
- DeLoach _____
- Malone _____
- McGuire _____
- Rosen _____
- Tamm _____
- Tele. Room _____

OCT 10 1960

63 OCT 5 1960 TELETYPE UNIT ☐

UNITED STATES GOVERNMENT

Memorandum

Tolson	_____
Mohr	_____
Parsons	_____
Belmont	_____
Callahan	_____
DeLoach	_____
Malone	_____
McGuire	_____
Rosen	_____
Tamm	_____
Trotter	_____
W.C. Sullivan	_____
Tele. Room	_____

TO

Mr. Tamm

DATE: September 16, 1960

FROM

JUNE

SUBJECT: TELEPHONE CALL TRACING DEVICE

A practical method of rapidly locating the originator of a telephone call in kidnapping, extortion, bomb threat and similar cases has long been a matter of grave concern to the Bureau. The Laboratory is continuing to vigorously pursue the problem of tracing telephone calls.

The Electronics Section, as part of its supervisory function in this matter, instructed Los Angeles to explore the call tracing device being developed by [redacted] Tele-Signal, 11618 Exposition Boulevard, Los Angeles. After an exchange of correspondence between the Laboratory and the Los Angeles Office, memorandum dated 6-1-60, captioned as above summarized the developments of instant device and pointed out that further exploration by Los Angeles was not warranted at that time because the sound-trained personnel in the field do not have detailed knowledge of the Bureau's over-all call tracing problem. Accordingly, I proposed that the next time an engineer from the Electronics Section, familiar with the call tracing problem, is in the Los Angeles area that he would contact the Tele-Signal group for additional technical information and to explore the latent possibilities of their call tracing device.

In making the afore-mentioned proposal, it was thought that the special alarm equipment installed by Electronics Section engineers on February 8, 1960, to cover a certain dead drop area in the Los Angeles area would have required servicing by an engineer from this Section. This has not been the case and since this alarm equipment has not required servicing, we will use this opportunity to not only recheck our special alarm equipment but will also contact Tele-Signal for a technical review of current developments in the call tracing field and to explore the latent possibilities of their project.

- 1 - Mr. Rosen (Attention: [redacted] Room 5726)
- 1 - Bufile 149-0 (Destruction of Aircraft or Motor Vehicles)
- 1 - Bufile 105-70109 (OXBLOOD)
- 1 - Bufile 105-46154 (LAROB)

80-789

CKC:pcc (12)

REC-78

EX 104

OCT 4 1960

UNRECORDED COPY FILED IN 147-0-1

TRACING TELEPHONE CALLS

4-22-60
4-22-60
4-22-60

Memorandum to Mr. Tamm
Re: TELEPHONE CALL TRACING DEVICE
80-789

JUNE

RECOMMENDATION:

It is recommended that an engineer of the Electronics Section who is familiar with the Bureau's over-all call tracing problem interview the developers of the call tracing device being developed by Tele-Signal, Los Angeles, California. While in the area he will recheck the special alarm equipment set up to cover a dead drop area in Los Angeles.

OK
P

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI (80-789)

DATE: 2/25/58

[redacted] AC, NEW YORK

JUNETRACING TELEPHONE CALLS

ReBulet to NY, dated 2/7/58 and NYlet to Bureau, dated 4/19/57.

[redacted] Chief Switching Engineer, and [redacted] Switching Engineer, Bell Laboratories, Inc., 463 West Street, New York, advised that there were no new developments known to them in connection with the tracing of telephone calls since they last furnished information to Supervisor JAMES J. HILL, NYO. It will be noted that the information concerning this interview is set forth in letter to Director, FBI, dated 4/19/57. [redacted]

[redacted] stated that he had no direct knowledge of any tracing problems that might have existed in the Telephone Company, Poughkeepsie, New York, and had they directed any inquiries to the Bell Laboratory, that would undoubtedly have come to his attention.

[redacted] New York Telephone Company, 140 West Street, New York, New York, furnished substantially the same information as was furnished by [redacted] and [redacted]

It will be noted that [redacted] and [redacted] stated that they could conceive no manner whereby the tracing of calls could be accomplished at Poughkeepsie except by the technique described in the NY letter, dated 4/19/57. It will be noted that all these people were aware of the Poughkeepsie exchange being Number Five Cross Bar equipment.

[redacted] and [redacted] New York Telephone Company, Poughkeepsie, New York, furnished the following information:

They stated that the Telephone Company in Poughkeepsie is operated in one plant having exchanges Globe 2, Globe 4 and Grover 1, all exchanges operating on Number Five Cross Bar equipment. They advised that this equipment is set up for tol

2-Bureau (80-789) (Registered Mail) FEB 18 80-789-10

1-New York

JJH:pec

1958

EX-128

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SEVEN

EX-128

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b7C

EXP. PROC. FEB 27 1958

LETTER TO DIRECTOR

JUNE

dialing with automatic punch card Trouble Indicator and A.M.A. tape billing. They advised that other towns in the vicinity, such as Hyde Park exchange Capitol 9; Pleasant Valley exchange Mercury 5; and Wappingers Falls exchange Axminster 7, are the other communities in the vicinity that have dial equipment and each of these are step by step operations. They further advised the other nearby towns are all manual operations. These telephone men stated that all traffic dialed in from Hyde Park, Pleasant Valley and Wappingers Falls can be dialed directly into Poughkeepsie through a tandem system into the Poughkeepsie equipment. It will be noted that the Poughkeepsie operation proper has approximately 20,000 to 21,000 telephone subscribers that operate through the before-mentioned three exchanges on Number Five Cross Bar equipment located within one building.

*XTORTION
CASE* In the case of the tracing of the calls at Poughkeepsie, it will be noted that this was effected by installing a 3300 ohm resistor on the tip side of the victim's line which caused the Trouble Indicator equipment to punch out a card identifying the incoming conductors. From this information they were able to identify the calling number. The length of time required to trace these calls in this instance was about ten minutes. The back tracing was effective throughout the area covered by the Poughkeepsie operation which covered the greater Poughkeepsie, New York, area, all of which was being serviced by the Number Five Cross Bar equipment.

It should be noted that it is generally regarded, in operation practices, that 10,000 lines are assigned to one Number Five Cross Bar exchange. However, it is possible by adjusting the marker entity of the equipment to handle a greater number of subscribers than this and the Telephone Company can, in certain areas, alter the marker entity of the equipment to increase the capacity of the actual switching equipment. This is done in certain areas where the usage factor per line is low enough to warrant such a modification of the equipment. In the case of the Poughkeepsie tracing,

LETTER TO DIRECTOR

JUNE

b6
b7C

any call originating in the Globe 2, Globe 4 or Grover 1 area and terminating in these exchanges could be traced from calling party to called party. The circuit employed for this was the standard Trouble Indicator equipment, which is standard on Number Five Cross Bar equipment and no special arrangements were made to make it available to the victim's telephone inasmuch as it is available to all telephones served in the exchange.

One point of interest developed at Poughkeepsie was that [redacted] displayed an office memorandum entitled, "Anonymous Calls, Attachment Number One, Page Three" issued by the Division of Rate and Market Supervisor in Albany, New York, wherein there was a discussion of nuisance calls and the Telephone Company pointed out to its managers that the Plant Department had developed a new device to be used on step by step equipment in tracing nuisance calls. This device was described as a small box that could be attached to the victim's line in the central office and when the victim receives a nuisance call he could press the cradle switch one time which would cause this device to lock up the switches and set up an audible alarm system in the central system. It is further described that this piece of equipment would lock up the switches and hold them until personnel could trace out the circuit and determine the original of the call. It was noted that this memorandum stated that one of these devices was being located in each division office of the Telephone Company. This technique was described in a general way in NY memo, dated 4/19/57.

*This
ground
please
circuit.
We have circuits
for this device.
OK*

It is believed that should the Bureau desire to pursue this device further, that the approach should be made most discreetly so as to avoid possible embarrassment to [redacted]

It will be noted that the Manager of the Telephone Company in Albany, New York, is [redacted] Operations, 158 State Street, Albany, New York, formerly assigned to the New York City operation and a personal friend and contact of Supervisor JAMES J. HILL while he was assigned here. If the Bureau has no other established contact on the proper level in Albany, it would be possible to discreetly make inquiry regarding this device to [redacted]

Office Memorandum • UNITED STATES GOVERNMENT

TO : MR. PARSONS *Pz*

DATE: July 23, 1957

FROM : *me*b6
b7CJUNESUBJECT: TRACING OF TELEPHONE CALLS

There is attached hereto the technical analysis of the survey of telephone switching and automatic accounting equipment in selected offices. This survey was approved by the Director.

The results of the survey were submitted in a nontechnical memorandum. This memorandum is, therefore, being submitted to record the technical details of the survey.

ACTION:

None for record purposes.

Enclosure

80-769

CKC:rmp
(6) *rmf*

RECORDED - 77

EX-131

16 JUL 25 1957

53 AUG 1 1957

3 MAY 21 1959
AY 21 1959 *ack*

**TECHNICAL ANALYSIS OF THE SURVEY OF TELEPHONE
SWITCHING AND AUTOMATIC ACCOUNTING EQUIPMENT**

In my memorandum dated 3/26/57 I reviewed the tracing of telephone calls and recommended a survey be conducted by selected offices to determine the type of telephone switching equipment and accounting methods used for local traffic in their headquarters city with particular emphasis on transportation company telephone service. The Director approved this survey. The survey has been completed. The results were submitted in a nontechnical memorandum.

The telephone operating companies have no tracing techniques which are not known in the Laboratory. They have developed two circuits, one by a Bell System Company and one by an independent manufacturer, which follow closely the Laboratory's suggestion for preserving the conversation path long enough to trace back calls in certain types of equipment. These circuits enable the subscriber of the "called" telephone to dial a code number or push a button at his telephone instrument to operate special accessory equipment that preserves the conversation path until an experienced telephone company employee can physically trace the call to the point of origin. If the point of origin is within the same exchange, the "calling" telephone number can be ascertained. If the "calling" telephone is in another or foreign exchange, it is not possible to trace the call back beyond the terminating office if the "calling" party has hung up. This equipment is known in the telephone industry as "Annoyance Call Circuits."

In my memorandum 3/26/57 I pointed out that the delayed tracing of calls can be effected on certain types of telephone traffic through the use of operator-prepared toll tickets and Automatic Machine Accounting (AMA) records. This system has not been universally installed by operating companies and in most companies where the system is functioning inadequate information is recorded to be of investigative assistance on local calls. Therefore, no further consideration will be given this method at this time. When the system has been installed by a greater number of operating companies and the recorded data expanded to include the "called number" on the so-called local toll charges, suggestions for investigative leads will then be made for delayed tracing of calls by an accelerated machine accounting method.

80-789-442

~~80-769-306~~

ENCLOSURE

Engineers of Bell Laboratories have advised Agents of New York Field Office that all coin lines are on separate line link frames, which frames are not equipped to generate the calling line location. This, in the case of noncoin telephones, is translated into calling directory number for recording on AMA tape. Development wise, it should not require great effort to provide for such arrangements. It would, however, be necessary to apply this to the frames in the field at a cost of \$10 to \$15 per district frame. The number of district frames will vary with the size and traffic in a central office.

I pointed out in my referenced memorandum that it was within the realm of possibility that the "grounded sleeve" control circuit available in Step-by-Step equipment could be expanded to other types of telephone switching devices by the addition of special circuits. This matter was discussed with Bell Laboratories engineers who advised Agents of the New York Field Office that some of the switching engineers believe that certain circuits controlling the conversation path could be modified so that "joint holding" (previously referred to in my memorandum as "grounded sleeve" and "operator lockup" circuits) can be effected. If this can be made to work satisfactorily, it will give the "calling" and the "called" parties equal lockup priority on the conversation path. This means that each telephone would hold up the conversation path as long as either of the instruments is off the hook. Such a facility would permit the "called" party to hold up the conversation path until the physical tracing can be completed. There is no accelerated method for tracing back this call and both the "called" and "calling" telephone service would be tied up for the entire trace period. The engineers feel that, if this can be worked out, only a day or two per central office will be required to make the modification. The engineers did not advise the circuits or amount of equipment or installation costs to effect this modification. They did not indicate the amount of central office equipment which would be "locked up" during the trace period. If a number of common switching units are "locked up" during the trace period, additional common equipment must of necessity be added to assure continued quality service.

Bell Laboratories Engineers advised Agents of New York Field Office during a follow-up contact that a preliminary study of the standard coin junctions indicates that the

addition of a relay would permit rewiring the circuit so the release of a connection would be delayed until both the "calling" and "called" parties hang up. To make joint holding effective only when desired, a relay contact would also be wired through a make contact of a 20-contact relay, one such relay will have to be installed per group of 20-coin junctions. This multicontact relay, in turn, would be controlled by a single key per office.

The Bell Laboratories indicated there are a great variety of conditions which may be encountered on calls running into overtime and it would be advisable to confirm the practical aspects of this procedure before relying on it.

One of the main obstacles present in this conversion is that any modification whereby the "called" party can control the line is contrary to the policy of operating companies. Another obstacle is the possibility of jamming the telephone switching system by "calling" and "called" parties leaving the telephone off the hook.

Certain types of telephone switching equipment electrically test each line prior to completing the call to the "called" party. If a line fails to check satisfactorily, a trouble report is made either by coded lights or punched card. This trouble report reflects the "called" number and the equipment used to route the call. By imposing a "fake" trouble on a subscriber's line without affecting intelligibility the equipment will report the incoming line from a foreign exchange. Any tracing in the foreign exchange will have to be done manually while the conversation is in progress if the number of the "calling" telephone is to be ascertained. If the testing equipment is busy handling a call arriving a fraction of a second ahead of the interested call, the pertinent call is routed through an alternate path and passed to the "called" party without benefit of the test or test report. There are no data available which indicate the number of times calls by-pass the test equipment. This technique has investigative potential on repeat types of calls where the "calling" person makes all calls from one particular telephone or from the same exchange.

A follow-up contact with Bell Laboratories by New York reported, in their letter 6/20/57, another possibility that can be considered with trouble report cards. A call originating in a Number Five cross bar office, regardless of the office in which it is to terminate, requires the use of a portable "matching" circuit unit. To cover a given originating area would require as many units as the number of combined and completing markers in all Number Five offices in the area. Each unit would contain fourteen high impedance relays, one end of each relay connects to a common lead to be supplied with central office battery. The other end of each relay brought out to a clip lead. By properly connecting these leads, the marker would complete the call; however, it would make a trouble record before releasing. The record would identify the "calling" line in terms of the line link frame location.

This proposal would prove successful within the limits of the availability of the trouble recorder at the time the call is made.

The survey from the selected offices reflects that, if the operating companies approve, the Bell System or the Automatic Electric Step-by-Step Annoyance Call Circuit could be installed in the present switching equipment at Dallas, Honolulu, Los Angeles and in some areas in Miami. It is believed that certain changes should be made in the Automatic Electric system which will permit its activation by a means other than by dialing "1" while the conversation is in progress. The Bell System unit employs an auxiliary push button located in close proximity to the "called" telephone instrument. It should be pointed out that, if this system is to be effective, the covered line should not terminate in a switchboard unless the switchboard operator monitors all calls and can operate the annoyance call holding switch.

Transportation companies in a large city have a number of telephone lines which terminate in a switchboard. Because of the number of lines involved and the fact that the back tracing of calls is complicated with the interception of all calls by a switchboard, the cost for installation of tracing equipment, even if successfully designed, would be prohibitive. Too, to man the telephone exchanges in anticipation of tracing a call represents a tremendous amount of nonproducing

highly skilled technical personnel time. These factors represent costly operations from a telephone company standpoint. It is doubtful if the results obtained from this technique would justify the costs involved and, until such time as this operation can be performed by a fully mechanized operation, it does not appear logical for the Bureau to suggest this approach on anonymous telephone calls to transportation companies.

The matter of tracing telephone calls is a courtesy afforded the Bureau by individual operating companies. They have assisted our people to the extent of their abilities at every known request. We are aware that they are strong in their position that every subscriber should be able to make a call from his own telephone on his own volition. To prevent a "calling" party from making use of his own telephone, when desired, is contrary to the beliefs and principles of the operating companies.

The development of dial-calling involves the technique and circuitry of many types of equipment. To install and make use of the equipment which may be developed to even partially hold and permit tracing of calls will involve some costs. The extent of these costs will depend, for the most part, on the requirements of the Bureau. There is some question as to whether the telephone companies would be willing to invest in this equipment and to assume the personnel costs for tracing the calls.

Furthermore, a question may be raised by the telephone companies regarding the legality of disclosing information ascertained by this method. It is our understanding that details regarding the "calling" party are not made public under any circumstances by any company. To make such information available would require a complete change of policy.

A highly placed contact in the local telephone company who has a prominent voice in shaping Bell System policy, feels that it will be necessary to modify the switching equipment for the entire area if the tracing equipment is to be effective in tracing calls. If the cost is only one dollar per line, the cost for installation in the local company would be one million dollars.

In the light of the above, as well as the statement of Bell Laboratories engineers that there will be a problem of local company agreement because of the "unorthodox procedure," it is believed that the Bureau must be most selective in requesting tracing service and equipment and extremely discreet in the dissemination of the information developed from this technique.

It should be pointed out that the problem of tracing telephone calls has been discussed with Bell Telephone Laboratories engineers in the past. They have appeared to be sincere and interested in the Bureau's investigative problems in this matter. We should understand that the Bell Laboratories are a research and development organization for the Bell System and even though they develop an approved circuit for each of the dial systems to preserve the conversation path, which will facilitate tracing of telephone calls, there remains a question as to the position of the operating companies in this matter. Our contact feels that to press for a favorable decision in this matter may change the outstanding relationships and co-operation being received by the Bureau from his company and possibly in other telephone companies in many necessary matters at the present time. It should be recognized that unless efforts by the Bureau in this matter are closely guarded, no doubt other governmental agencies and possibly the public will make similar requests. Publicity within the federal agencies or possibly with the local commissions in connection with the establishment of rates or charges, if requests for tracing services are excessive, may result in the defeat of the proposal or even present tracing practices.

The Electronics Section will continue, as in the past, to keep informed on developments within the telephone industry on the entire tracing problem and to take advantage of the assistance and co-operation of the individual telephone companies whenever possible.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Parsons

DATE: 7-12-57

FROM :

b6
b7CJUNE

SUBJECT:

TRACING OF TELEPHONE CALLS

Tolson _____
 Nichols _____
 Boardman _____
 Belmont _____
 Mohr _____
 Parsons _____
 Rosen ☒
 Tamm _____
 Trotter _____
 Nease _____
 Tele. Room _____
 Holloman _____
 Gandy _____

The Laboratory continues to keep abreast of telephone company research and operating practices. As a result of this continuing technical review and evaluation, it was felt that several particular procedures might provide assistance in the problem of tracing anonymous telephone calls. Accordingly, a technical survey was begun 3-26-57 for the purpose of ascertaining the extent to which certain types of telephone systems had been installed in major cities along with technical possibilities which were presented by these systems.

Briefly, the results of the technical studies are summarized as follows:

1. No unfamiliar tracing techniques were reported.
2. Within certain company systems, a particular circuit can be employed to preserve a conversation path under certain conditions. Installation costs and personnel expenses prohibit use of this system on a wide scale even in those areas where the technique can be employed.
3. Another procedure disables a portion or all of a telephone exchange, thereby preserving the telephone line path through the exchange. However, this procedure blocks out all other calls in the exchange, making it generally undesirable.
4. Use of automatic accounting equipment is universally prohibitive at this time because of its limited installation by the operating companies. This method offers some promise for the future as an aid when its use becomes more widespread throughout the country. This development will be followed.

Enclosure -

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(5) ctw

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6 AUG 7 1957

EX - 116

6 AUG 15 1957

Memorandum to Mr. Parsons from

RE: TRACING OF TELEPHONE CALLS

In continuing to follow telephone company technical and policy developments, it is apparent that:

1. They will not hesitate in most instances to offer assistance in tracing calls where one line is involved. In these instances, under emergency conditions, they feel that they can afford to commit a minimum amount of equipment, money and personnel over a limited period of time.
2. They fear requests which would require placing expensive equipment on hundreds of lines (such as are in use by airline companies) and the committing of high-salaried personnel full time in all of the exchanges while awaiting an anticipated incoming call which must be traced. Because of the equipment and personnel expense involved in setting up the mechanics for tracing telephone calls ahead of time, local telephone operating companies will as a matter of course refer these requests to the parent organization for decision. Our high-level technical contact in the telephone company in Washington is the official who normally passes on these matters. The contact feels that a quantity of requests directed to local companies to install technical means to trace calls at any time would result in a necessary withdrawal of certain confidential telephone services and cooperation now being extended to the FBI. In particular, he has reference to requests, such as those involving coverage of all trunk lines serving air transportation companies in one city.

In order to forestall the possibility of placing in jeopardy existing telephone company cooperation throughout the country by uncoordinated requests directed to local telephone operating companies by FBI field offices, it is believed necessary to caution the offices and outline a procedure for them to follow.

RECOMMENDATION:

That the attached proposed SAC Letter be approved and forwarded.

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI
 ATT: ELECTRONICS SECTION, FBI LABORATORY
 FROM : SAC, NEW YORK
 SUBJECT: TRACING TELEPHONE CALLS

DATE: 6/20/57

JUNE

Reference is made to New York letter to Director, April 19, 1957.

Reference is made to paragraph two, page 28, in the above-referenced New York letter wherein discussion is set forth with regard to "joint holding" possibilities on Number One Cross Bar and Panel Type equipment.

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[redacted] Bell Laboratory, has advised that Switching Engineer [redacted] has made some study with regard to the Number One Cross Bar equipment and the possibility of building a joint customer holding feature into it. The preliminary study of the standard coin junctors indicates that the addition of a relay would permit rewiring the circuit so that release of a connection would be delayed until both the calling and called parties hang up. The relay would have to be connected in the front contact circuit of the called party's relay. One contact on the new relay would perform the function presently performed by the called party's contact; a second contact would parallel the present contact on the calling party's relay.

In order that joint holding would be effective only when desired, the second relay contact, mentioned above, would also be wired through a make contact of a 20 contact relay, one such relay to be provided per group of 20 coin junctors. The multicontact relays, in turn, would be controlled by a single key per office.

There are a great variety of conditions which may be encountered on calls running into overtime and it would be advisable to confirm the practical aspects of the above procedure before relying on it.

cc det.
 3-Bureau (RM)
 (1-Electronics Section, FBI Laboratory)
 1-New York

EX 105

RECORDED - 80

80-789-43

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JUN 24 1957JJH:pec
(4)

No reply necessary
 this appears to be a step in the
 light detection however coverage
 must be practical OK 6/26/57

Retained in Electronics Section
 JUN 24 1957
 REC'D - ELECTRONICS
 SEVEN

EXP. PROC.
 JUN 24 1957
 31

LETTER TO DIRECTOR

JUNE

Reference is made to paragraph two, page 25, of the above-referenced New York letter, continued onto page 26. In this portion of the letter discussion is set forth with regard to trouble recorder cards on Number Five Cross Bar equipment.

The Bell Laboratory has advised that in addition to the information previously proposed to be used in connection with trouble recorder cards, there is another possibility that can be considered. The following is a proposal for obtaining such a record when the call originates from within a Number Five Cross Bar office regardless of the office in which it is to terminate. This is an alternative to the scheme of proposing AMA records on coin line calls.

The alternate scheme requires the use of a portable "matching" circuit unit. To cover a given originating area would require as many units as the number of combined and completing markers in all of the Number Five offices in the area. Each unit would contain 14 high impedance relays, one end of each relay connected to a common lead to be supplied with central office battery. The other end of each relay brought out to a clip lead. The clip leads would be connected to the marker terminal strip punchings associated with certain of the leads over which the originating register passes the number as dialed by the calling party. There are five such leads per digit, two of which are grounded in the conventional two out of five pattern on each call. By connecting the clips to the proper two punchings associated with each of the first seven digit groups, the simultaneous operation of all fourteen relays would indicate that the call in progress was being directed to the called line under study. This would close a chain circuit to a 15th clip lead connected so as to ground the marker TRS lead punching. This would cause the marker to complete the call, but to stop and make a trouble record before releasing. The record would identify the calling line in terms of its line link frame location.

This proposal, as in the earlier proposal, for a trouble record on an intra-office call, would prove successful within the limits of the availability

LETTER TO DIRECTOR

JUNE

of the trouble recorder at the time the call is made.

In the above-referenced communication it is noted that the possibility of AMA tape recording as applied to Number One Cross Bar equipment is discussed. Further consideration of this scheme makes it unattractive from the following reasons:

1. The number of Number One offices equipped for AMA tape is very small.

2. Coin lines are on separate line link frames and these frames are not equipped to generate the calling line location information which, normally, is translated later into calling directory number for recording on the AMA tape. Developmentwise, it should not require great effort to provide for such arrangements. It would, however, be necessary to apply this to the frames in the field.

3. AMA translators are not provided for the line columns associated with the coin line link frames. This would be a matter of furnishing and installing additional translators and cross-connecting the translators to direct the coin line calls to the proper translator.

4. Considerable development work would be required in redesigning the district junctor to make an AMA record on a coin line call. Before going forward with such development, it would be advisable to consider the limited number of exchanges to which the arrangement could be applied and the effort involved in cutting and processing the tape records.

The alternate plan, which has been proposed but not thoroughly worked out, would avoid the expense of equipping coin translator terminals if a distinctive lead could be provided between the senders and translators. This might involve a spare message billing index. This plan would cause the transverter to stop early in

LETTER TO DIRECTOR

JUNE

its operation to allow a clipped on "matching circuit" of the type previously described for the marker, to examine the called number information. Where a match is detected, a transverter trouble indicator display would result, identifying the calling line in terms of its line link frame location. No recording on AMA tape would be involved. The call would be allowed to complete itself on the second trial.

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[] has advised that he would guess that the cost of the modification of the district for joint holding would be between \$10 and \$15 per district. He further comments that any interest in any particular place where we may want to apply this for test would have to be worked out with the operating company.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI

FROM : SAC, Honolulu (66-613)

SUBJECT: TRACING TELEPHONE CALLS

ATTENTION: ELECTRONICS SECTION
FBI LABORATORY

DATE: 6/21/57

J U N Eb6
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Rebulet 5/6/57 and Honolulu letter 5/28/57.

In an effort to trace anonymous telephone calls reporting bombs on aircraft at Honolulu, the Hawaiian Telephone Company for the past several weeks has been using the annoyance call holding repeater circuit on the first trunk telephone line of the Honolulu office, which receives a majority of incoming telephone calls.

On 6/18/57, [redacted] Special Agent, Hawaiian Telephone Company, advised that engineers of that company had modified this equipment so that it could cover all three trunk lines of this office. The equipment was also changed so that it is no longer necessary to dial "1" in order to hold a call. The equipment is now so constituted that even though the caller hangs up his telephone the circuit is not broken until the telephone in the Honolulu office is hung up or the key closed. There is, therefore, no keying impulse which would become apparent to the caller, although he remains connected with the Honolulu office and cannot utilize his telephone for another call until the circuit is broken at the Telephone Company switchroom. Several tests were made with this equipment and in each instance the call was successfully traced to its origin.

Of course this tracing is successful only where the call originates in the central office area of Honolulu, which covers the Honolulu office. If the call originates outside that area, the equipment will trace the call only back to the trunk line coming from the exchange in the area in which the caller is located. [redacted] advised that this equipment can be utilized anywhere in the Honolulu area but is not effective in certain mainland areas which have abandoned the crossbar system of switching equipment.

The above is furnished for the information of Bureau. *dat.*

2 Bureau (Registered)
1 Honolulu
VHB:KH
(3)

RECORDED-46

EX-131

10 JUN

JUN 28 1957

6-25-57

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI
 FROM : SAC, HONOLULU (66-613)
 SUBJECT: TRACING TELEPHONE CALLS

DATE: 5/28/57

J U N E

ATTENTION: ELECTRONICS SECTION, FBI LABORATORY

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Rebulet 5/6/57.

On 5/27/57, [redacted] Equipment Installation and Maintenance Supervisor, Hawaiian Telephone Company, Honolulu, advised that his company had never installed the Annoyance Call Holding Repeater Circuit because they had never had good reason for using this equipment. He said that their failure to use the equipment was not due to any defect in the equipment but was simply that the ordinary instances of annoyance calls did not, in their estimation, justify the trouble and expense of installing this equipment.

When questioned as to the technical problems involved in installing this equipment, [redacted] made available his blueprint showing the circuit diagram of the equipment and he also made available a three-page pamphlet explaining the circuitry and operation of this equipment. Copies of these two items are being made and enclosed herewith for the Laboratory's information. It will be noted that both the blueprint and the pamphlet were originally prepared in 1935, although the pamphlet bears a revision date in 1942.

[redacted] earnestly suggested that the Bureau contact the Automatic Electric Company of Chicago, Illinois, the manufacturers of this equipment, as the logical source for information on up-to-date models and current installation and operation data concerning this equipment. He also added that the Bell Telephone Laboratories will unquestionably have information concerning current models of comparable equipment available.

Concerning the labor installation cost per line, [redacted] advised that it takes one man about five hours to set up this equipment to cover a telephone.

RECORDED - 67

80-789-40

18 MAY 31 1957

2 - Bureau (Encs. - 2) (REGISTERED)
 1 - Honolulu

6 JUN 10 1957
 (3)

EX-127

1cc & inclosure returned in
 Electronics section 5/31/57

SEVEN

EXP. PROC.

HN 66-613

With regard to the questions as to whether an auxiliary push button switch could be added to eliminate the necessity of the called party dialing "1" and as to whether this lock-up feature could be accomplished without the calling party hearing the keying pulse, [redacted] stated that he was confident that with a little research both of these objectives could be achieved. However, he again stated that the possibility exists that these problems have already been encountered and solved by either the Automatic Electric Company or the Bell Telephone Laboratories.

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Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI
ATTN: Electronics Section
FBI, Laboratory

DATE: 5/22/57

FROM : SAC, LOS ANGELES (66-119)

J U N E

SUBJECT: TRACING TELEPHONE CALLS

Mr. Tolson	_____
Mr. Nichols	_____
Mr. Belmont	_____
Mr. Mohr	_____
Mr. Parsons	_____
Mr. Rosen	_____
Mr. Tamm	_____
Mr. Trotter	_____
Mr. Nease	_____
Tele. Room	_____
Mr. Holloman	_____
Miss Gandy	_____

Re Bureau letter dated April 18, 1957, requesting contact with the General Telephone Company of California, the California Water and Telephone Company, and the Sunland-Tujunga Telephone Company.

It should be pointed out that Los Angeles letter dated April 13, 1957, bearing the answers to the problems of tracing telephone calls as concerning the Pacific Telephone and Telegraph Company at Los Angeles was limited to that company principally because the Pacific Telephone and Telegraph Company covers all the principal airline terminals, railroad stations, bus stations, etc., in the Los Angeles area and the three telephone companies covered by this letter are principally suburban companies and do not cover airline terminals, railroad stations, bus stations, etc.

The questions asked in Bureau letter to Boston dated March 28, 1957, will be answered in this letter with the same numeral as the question asked but with the three telephone companies set out separately.

The following information pertaining to the tracing of telephone calls was furnished by [redacted] Special Agent, General Telephone Company of California, Santa Monica, California:

1. Strowger Step-by-Step equipment manufactured by the Automatic Electric Company.
2. Calls may be traced by manual methods during the period of the conversation. The tracing time is much faster in the forward direction (i.e. from calling number to called number) than in the backward direction.

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③ - Bureau (AIR MAIL - REGISTERED)
1 - Los Angeles

OTJ:DMM

(4)

JUN 3 1957

Nonreply necessary after 5/28/57

EX 105

RECORDED-59

16 MAY 29 1957

SEVEN

3. No.
4. Not as a standard arrangement. It is possible, by special wiring features, to provide for called party control. This will provide for complete backward tracing only on calls originating within the local central office. Calls originating in remote offices may be traced backward only to the point of identifying the incoming trunk group used in the connection.
5. On local toll call unit. The message unit message is recorded by the traffic operators on a toll ticket showing the date of call, calling telephone number, called telephone number, filing time, and number of units charged. Ordinarily these tickets are received in the Revenue Accounting Department on the second work-day after the date of the ticket.

Where automatic ticketing is in use, the ticket information referred to above is shown on a tape and the tapes for each days business are forwarded to the Revenue Accounting Department, and in this case they are also received the morning of the second work-day after the date of the ticket.

6. Yes, the Los Angeles Extended Area is zoned. A call from a station in one zone to a station in another zone is measured in terms of "multi-message units." A multi-message unit call may be defined as a station to station call from an extended telephone to a telephone beyond the local calling area but within the Los Angeles Extended Area.
7. A flat rate service subscriber may make a call or unlimited number of calls within the local exchange area for a basic exchange service charge. If extended service is offered, a subscriber may call anywhere within his extended calling area which usually consists of the contiguous exchanges. Calls outside of the designated areas above are either toll calls or multi-message unit calls and are charged accordingly.

8. Long-distance toll charges are recorded on the toll ticket by the traffic operators of the originating office, and these tickets at present are routed as follows:

Intra-state calls are sent by the traffic office direct to our Revenue Accounting center and are received approximately the second work-day after the date of the ticket. Inter-state toll calls are sent to the Pacific Telephone and Telegraph Company accounting center in Los Angeles, processed, and then sent to our Revenue Accounting center in Long Beach. These tickets are received in our office five to seven work-days after the date of the ticket. Received collect tickets are sent by the originating traffic office to their Revenue Accounting center which in turn transmits the tickets to the Revenue Accounting center of the Pacific Telephone and Telegraph Company in Los Angeles, and sent to our billing center in Long Beach. These tickets are received from five to twenty work-days after the date of the ticket, depending on the distance that the toll ticket must travel before reaching our office. Credit plan tickets are sent from the traffic office to the Pacific Telephone and Telegraph Company Revenue Accounting center, and then routed to our office for billing. These arrive from two to twenty work-days after the date of the ticket, depending upon the originating point and the distance to our office.

When the billing tickets are received in this office, they are sorted into racks by the first three digits of the telephone number and retained in the rack until time for billing, at which time again sorted by the last two digits and billed to the customer. After billing, the tickets are forwarded to the local commercial office for retention as required by the P.U.C.

9. The data recorded is date, calling station, called station, number of minutes, and filing time.

10. The original data in the form of tapes, is reproduced into individual IBM cards for each message. The tape is destroyed as soon as it is determined, for there has been no error in the reproducing processes. However, the IBM cards are retained for a period of sixty days after billing to the customer. Toll calls are retained six months.
11. This depends upon the stage of processing of the messages at the time the request for the information was received. If in the processing prior to being billed to the customer's account, the time will vary from several hours for an individual call for one message up to four to six hours where multiple messages are concerned. If the period of information is after the date of billing to the customer, the calls can be assembled in just a few minutes.
12. In the Revenue Accounting Department, 1150 East 4th Street, Long Beach, California.
13. The accounting center covers the billing of all exchanges owned and operated by the General Telephone Company of California.

The following information pertaining to the tracing of telephone calls as pertains to the California Water and Telephone Company were obtained from [redacted]

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[redacted] Telephone Division, 115 East Lime Avenue, Monrovia, California:

1. Step-by-step dial central office equipment.
2. In the greater portion of our dial exchanges we cannot trace a call from the called party's line to the calling party's line except during the duration of the call. After the calling party hangs up all switches will drop back. At our exchanges in the Los Angeles Metropolitan Area the following procedures are followed:

For example, say Mrs. SMITH is being annoyed by telephone calls from an unknown caller, JOHN DOE. If DOE calls Mrs. SMITH at regular intervals or

at intervals that can be anticipated, a man is stationed at the bank of connector switches serving Mrs. SMITH (or a bell is connected to the terminals of Mrs. SMITH's line). When a call comes in to Mrs. SMITH a switchman monitors on the call and if he finds the suspect, DOE, is making the call, he locks the connector holding the switch train and if it is a local call he can readily trace it to the line from which the call came (on a party line he would not be able to tell which party on the line placed the call). If the call comes over a trunk from another exchange, it is necessary for him to get the cooperation of a switchman in the distant exchange before the call is completed or the switches will drop off in the distant exchange. If the switchman in the distant exchange can lock up the call before DOE hangs up, in some cases he can trace the call to DOE. It is only possible to do this to offices having direct trunks to our offices. Time would not permit the following up of a call coming in over the tandem system.

If DOE calls Mrs. SMITH at irregular intervals so that it is not feasible to station a man at the connector bank, modifications are made on the connector board serving Mrs. SMITH so that the called party can hold the connection by leaving the receiver down. When Mrs. SMITH receives the call from DOE she leaves her receiver down and goes to the nearest telephone and calls the chief switchman who can have the call traced back to DOE before releasing the connection. This, of course, can only be done on local calls as calls over trunks from other exchanges would drop off when DOE hangs up.

3. See answer to question #2.
4. See answer to question #2.
5. Automatic toll ticketing is used in our exchanges in the Los Angeles Metropolitan Area. Our subscribers can dial all other subscribers in the Metropolitan area. When the call is made, the information as to the calling party, the called

party, the time of day and the length of call and other information required for rating calls is punched into a tape. This tape goes to the revenue accounting department where the information is punched into an IBM card. At the end of the month all cards for the particular calling subscribers are gathered together and the billings prepared on IBM machines from the information on the IBM cards.

6. The Los Angeles Metropolitan Area where multimesage unit service is rendered is zoned from the calling exchange by airline distances to determine the number of message units for a call from one exchange to another.
7. A subscriber can make a local call without toll charge to any station in the exchange in which the subscriber is located and to all contiguous exchanges. For example, a Monrovia subscriber can make a call without toll charge to Monrovia, Sierra Madre, Arcadia, El Monte, and Covina exchange subscribers. In the case of foreign exchange subscribers the free calling area would be the exchange from which they are served and the contiguous exchanges.
8. Transcribing billing information in statement form from originating toll tickets from toll switchboards. Long Distance calls (beyond the multimessage unit area) are handled with toll tickets. The toll tickets come to our revenue accounting section where the information is transferred to IBM cards. These IBM cards are sorted to the subscribers and at the end of the month the toll billing is prepared on the IBM machines from the information on the cards.
9. Date of call. Originating telephone number. Time of origination of call. Duration, in minutes, of call. Terminating telephone number. Zone code. Equipment code. Amount of charge.
10. Toll tickets are retained six months from date of bill. Multimessage unit tickets or tapes are retained sixty days from date of call.

11. Outward multmessage unit service: Information inaccessible for four days; readily available in ten days. Long distance: Information inaccessible for six days; readily available in twelve days. Inward collect calls: Information inaccessible for six days; readily available in twelve days. Inward paid calls: No.

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12. [REDACTED] California.

13. Telephone Division. Monrovia, Sierra Madre, San Fernando, California, plus a desert region from Redlands, California, to Palm Springs, California.

The following information concerning the tracing of telephone calls as pertains to the Sunland-Tujunga Telephone Company was furnished by [REDACTED] Sunland-Tujunga Telephone Company, 8000 Foothill Boulevard, Sunland, California:

1. This company uses Strowger step-by-step central office switching equipment. At present this company does not serve airlines, bus terminals, railroad stations or reservation offices within its exchange area.
2. This company uses a visual method to trace a telephone call from the destination to the point of origin by applying a telephone test set to trunks.
3. This company has no mechanical, electrical or electronic aids to rapidly trace a call to the point of origin.
4. This company, at present, has no system whereby the called party can seize the line by grounding. However, such a system could be installed at a terminating telephone and a terminating central office outside of the system of this company but tying into the circuit of this company.
5. This company itemizes by individual calls the charges to subscribers for local toll.
6. This company's subscribers do not have zoned dial areas.

7. From the Sunland-Tujunga community subscribers of this company may dial the following areas without a local or long distance toll charge:

La Canada	San Fernando
La Crescenta	Burbank
Sunland	Glendale
Tujunga	

8. This company uses IBM punch card equipment to bill subscribers for long distance toll charges. The charge is transcribed from an operator's toll ticket into a punched card.
9. With this company's equipment "unit" calls and local toll calls are recorded by a machine which shows all pertinent information except the cost of the call and includes terminating telephone number, originating telephone number, time of placement of call, elapsed time in minutes, zone, identity numbers of equipment handling the call.
10. This company retains the original accounting machine data from thirty days to one hundred and twenty days before destruction.
11. This company does have an accelerated method for reviewing accounting machine data to select all calls from a subscriber's number.
12. This company's machine accounting records are processed at 8000 Foothill Boulevard, Sunland, California.
13. This accounting center covers the area of Sunland and Tujunga.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI
Attn: ELECTRONICS SECTION, FBI LABORATORY

DATE: May 8, 1957

FROM: SAC, Boston (66-50)

SUBJECT: TRACING TELEPHONE CALLS

JUNEb6
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Rebulet dated March 28, 1957 and Boston letter dated April 12, 1957.

It is noted on page 2, paragraphs 7 and 8 that [redacted] Plant Engineer, New England Telephone and Telegraph Company, Boston, Massachusetts, advised that he would look into the engineering possibilities of a circuit to seize the line in #5 crossbar systems.

Regarding this circuit, [redacted] has since advised that the only circuit adaptable at this time is called a "Marker" circuit. This circuit's primary function is to make a record concerning the originating and terminating numbers of a line that is experiencing trouble in #5 crossbar offices where the caller and called party are working out of the same central office.

By simulating a "leak" on a particular line, the "marker" circuit could be used under the limiting conditions above in attempting to trace a call within a #5 crossbar central office.

We have had this reported previously. No reply necessary.

1cc retained in Electronics Section OK

RECORDED - 33

EX-127

18 MAY 10 1957

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(3)
REGISTERED MAIL

6 MAY 17 1957

EXP. PROC.
MAY 10 1957

100-27-37
MAY 10 1957
SEVEN

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI

JUNE

DATE: April 29, 1957

FROM: SAC, Miami

ATTN: FBI LABORATORY
ELECTRONICS SECTIONSUBJECT: TRACING TELEPHONE CALLS
MIAMI DIVISION

Rebulet April 19, 1957, requesting that information be furnished as set forth in Bulet March 29, 1957 to Boston, concerning the type of equipment utilized by the Peninsular Telephone Company at St. Petersburg, Florida, and methods used in tracing calls. Answers to questions are set forth in the same order as set forth in reBulet to Boston.

1. Step by Step Dial Switching equipment is used exclusively. This equipment is manufactured by the Automatic Electric Co., Chicago, Ill.
2. Method used to trace calls is the Manual tracing system which is a procedure of manually tracing of the call through each connection. Each digit dialed makes a connection and each connection must be traced. This is seldom successful due to the time involved to perform the trace as compared to the short time of the call during which the connection is intact. There is no possibility of tracing a call after the originating connection has been broken. The calling party controls the line until they hang up, at which time all connections are broken, and the equipment returns to normal. Calls made within the same exchange are more easily traced than those from one exchange to another due to the fact that the latter travel through a trunking cable and therefore additional time is involved to trace back to the source.

There are six exchanges in the St. Petersburg area: Main, Center, Dickens, Hemlock, North Gulf Beaches, and South Gulf Beaches.

3. No.

4. No.

5. No toll charges are billed to St. Petersburg subscribers calling any of the six exchanges in St. Petersburg. This is known as "Unlimited Service."

RECORDED
EX-1233

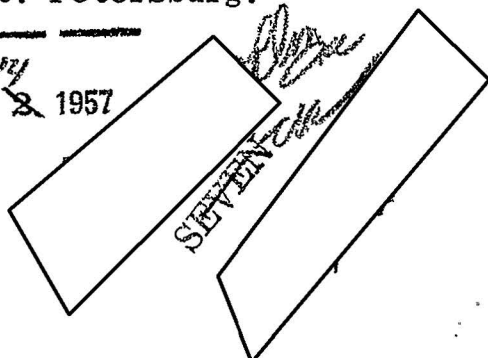
77-36

18 MAY 2 1957

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No reply necessary

② - Bureau (retained in Electronics Section)
1 - Miami
EWP:JHK
(3) MAY 17 1957



6. Monthly rates for local service are based on distance from downtown central office.

7. Same as No. 5 above.

8. A toll ticket is made on each call with the calling party's number as well as the called party's number, on station to station calls. On person to person calls, the name and number of both the calling and called parties are entered on the toll ticket. An electrical timing device is used to record the time of the call. Tickets are turned in daily at midnight by the operators on all calls. These tickets are sent daily to the accounting office, located at company headquarters in Tampa, Florida, and are then charged on the next monthly bill.

The same procedure is followed on collect calls, except the tickets are separated at the central accounting office and sent to the cities called to be charged to the subscriber who accepted the charges. Tickets are retained for six months and then destroyed.

9 thru 12. No automatic accounting system.

13. All of the territory covered by the Peninsular Telephone Company is handled through the Central Accounting Office at Tampa, Florida, which is the headquarters for this company. The Peninsular Telephone Company covers the Central West Coast Area of Florida, an area of approximately 6,000 square miles, and is one of the largest independent telephone companies in the United States. This area includes the following counties in Florida: Pinellas, Hillsborough, Pasco, Manatee, Sarasota, Polk.

The above information was furnished on April 25, 1957, to SA [] by confidential source []

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Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI (80-789)

DATE: 5/7/57

FROM : SAC, Philadelphia (66-1042)

J U N ESUBJECT: TRACING TELEPHONE CALLSAttention: Electronics Section
FBI LaboratoryRebulet to Boston dated 3/28/57 and Bureau airtel
4/24/57.Set forth below are the answers to questions set out
in rebulet concerning the tracing of telephone calls. This
information was obtained through [redacted]b6
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b7D[redacted] a confidential
source of this office. [redacted] on 5/6/57 advised that he
conducted a survey throughout all departments of the Bell
Telephone Company of Pennsylvania in an effort to obtain as
specific answers as possible concerning these questions.[redacted] advised that throughout his many years of telephone
experience it has been his personal observation that there
is no standard procedure among any telephone company for the
tracing of calls, and that such efforts depend upon the exi-
gencies of the situation and the type of equipment used to
make the call.

1. The type of central office switching equipment used in
areas serving airlines, bus terminals and railroad stations
and reservation offices.

Panel dial and No. 1 X Bar.

2. What method does the telephone company use to trace a
telephone call from the destination to the point of origin?

No standard method. An employee is assigned to trace a
call while the conversation is being held by the called
party. This tracing is done by physically locating equip-
ment in use and moving backwards on the frames.

- 2 - Bureau (80-789) (ENCL. - 1) (Registered Mail)
- 1 - Philadelphia (66-1042)

EAS:JMB
(3)

RECORDED-32

13
18 MAY 8 1957b6
b7C

ENCLOSURE

MAY 15 1957

Enclosure retained in Electronics Section.
1cc retained in Electronics Section OK

SEVEN

LETTER TO DIRECTOR

American Airlines	Passenger and Reservations, Tickets (La Guardia and International Airports) Longacre 4-4500 Ticket Offices located - 80 East 42nd Street; 200 Livingston Street, Brooklyn, and nine others with the same phone number - Longacre 4-4500	—
Argentina Airlines	Reservation and Passenger Information 759 5th Avenue PLaza 9-6201 New York International Airport OLympia 6-5950	—
Braniff Airways	All offices located 630 5th Avenue PLaza 7-0065	
Brazilian International	All offices -545 5th Avenue MUrray Hill 2-9070	— —
British European	Passenger Reservations and Ticket Office - 342 Madison Avenue MUrray Hill 7-8900	—
British Overseas Airways	Passenger and Tickets - 342 Madison Avenue MUrray Hill 7-8900 Passenger Information and New York International Airport OLympia 6-5720	
Canadian Pacific	All offices - 581 5th Avenue PLaza 9-4433	
Capital Airlines	Reservations and Information and Ticket Offices - 165 Broadway; 80 East 42nd Street MUrray Hill 7-8330	
Chicago and Southern	MUrray Hill 7-7460	

LETTER TO DIRECTOR

Colonial Airlines	Information and Reservations, 51 Vanderbilt Avenue MUrray Hill 6-5500
Cuban Airlines	Information and Reservations, 11 West 42nd Street PEnnsylvania 6-1930
Delta Airlines	Reservations and Information, MUrray Hill 7-7460 Address: 60 East 42nd Street
Eastern	Executive Offices at 10 Rockefeller Plaza CIRCLE 6-3300 Flight Information and Ticket Offices are at ten locations, including Newark, International and LaGuardia Airports, all with same phone number - MUrray Hill 8-8000
El Al Israel Airlines Ltd.	All offices - 37 West 57th Street PLaza 1-3400
Empire Air Coach	Information and Tickets - 159 West 45th Street PLaza 7-6886
Great Lakes Airlines	LaGuardia Airport only ILLinois 7-1701
Guest Airways - Mexico	Reservations and Information, 60 East 42nd Street MUrray Hill 2-7461
Iberia Air Lines of Spain	37th Street and First Avenue; 338 Madison Avenue MUrray Hill 7-6332
Icelandic Airlines	Ticket Information Offices - 15 West 47th Street PLaza 7-8585
Italian Airlines	15 East 51st Street and New York International Airport

LETTER TO DIRECTOR

Italian Airlines
(Cont'd)

MUrray Hill 8-3700 and
OLympia 6-5666

Japan Air Lines

All information - 590 5th Avenue
JUdson 6-7400

K L M Royal Dutch..

Passenger and Reservations -
572 5th Avenue
JUdson 2-4000
Downtown Ticket Office -
120 Broadway
COrtland 7-0605

Lufthansa - German

General Offices, Reservations
and Tickets - 555 5th Avenue
MUrray Hill 2-9100

Mohawk Airlines

Reservations, Tickets and
Information - 103 Park Avenue
MUrray Hill 6-7887

National Airlines

Reservations and Tickets -
80 East 42nd Street
MUrray Hill 7-7200

New York Airways

Headquarters - La Guardia Airport
DEfender 5-6600

North American

Office and Reservations - 1441
Broadway
JUdson 6-2100

Northeast Airlines

Ticket Offices located -
Airlines Building, 80
East 42nd Street and Broad Street
ILLinois 7-3000

Northwest Airlines

Offices, Tickets, etc.
537 5th Avenue
VAnderbilt 6-4680

Pan American Grace
Airways, Inc.

All offices - 135 East 42nd Street
MUrray Hill 6-7100

LETTER TO DIRECTOR

Pan American World	Tickets and Information - Airlines Building and six other locations, all with same phone number - STilwell 6-0600
Scandinavian Airlines System	General, Executive Offices - 1250 6th Avenue - Ticket Information, same phone number CIRcle 6-4000
Skycoach Service	Offices - 1480 Broadway CIRcle 6-3000
South East Airlines Agency, Inc.	Offices - 1572 Broadway JUDson 6-8200
Swiss Air Lines (also Swissair)	All offices - 10 West 49th Street PLaza 7-4433
Trans World Air- lines	Sixteen locations in Metropolitan area for tickets and information OXford 5-3535 and OXford 5-4525
Taca Airways Agency	22 West 48th Street JUDson 6-4980
Trans-Canada	Tickets and Information - 16 East 58th Street PLaza 9-3860
Trans Carribean	Offices - 160 Central Park South Terminal at 1421 Madison PLaza 7-1100 ENright 9-6400
Trans National Airlines	Offices - 1441 Broadway JUDson 6-2100
Trans World Airlines	No address given OXford 5-3535

LETTER TO DIRECTOR

Twentieth Century	Offices - 1441 Broadway JUdson 6-2100
United Airlines	Offices at both LaGuardia and New York International MUrray Hill 2-7300
Varig Brazilian Airlines	Reservations, Tickets and Information - 630 5th Avenue MUrray Hill 2-3100
Venezuelan Airline	Reservations and Information 781 5th Avenue PLaza 9-6500 New York International Airport OLympia 6-5656

BUS COMPANIES

American Buslines, Inc.	8 Avenue, 41st Street WISconsin 7-5056
American Trailways	Port Authority Bus Terminal 8th Avenue, 41st Street Longacre 4-8484
Bob's Bus Terminal	1381 Jerome Avenue CYpress 3-6800
Capitol Greyhound Terminal	245 West 50th Street Columbus 5-3000
Consolidated Bus Terminal, Inc.	201 West 41st Street WISconsin 7-5550
Continental Trailways Bus System	Port Authority Bus Terminal 8th Avenue at 41st Street Longacre 4-8484
Dixie Bus Depot, Inc.	241 West 42nd Street WISconsin 7-5300
Essex MKT Bus Terminal	60 Essex ORchard 4-9593

LETTER TO DIRECTOR

Greyhound Bus Lines	Bus Information Greyhound Terminal 242 West 34th Street COLUMBUS 5-3000 245 West 50th Street COLUMBUS 5-3000
Harlem Bus Terminal	5th Avenue, 124th Street LEhigh 4-1622
Hotel Dixie Bus Terminal	241 West 42nd Street WISconsin 7-5300
Hudson Bus Transportation Company, Inc.	Port Authority Bus Terminal 8th Avenue and 41st Street BRyant 9-7259
Hudson Transit Lines, Inc.	41st Street and 8th Avenue PENna 6-1300
Inter-City Transportation Company, Inc.	Port Authority Bus Terminal LONGacre 4-5444
Lincoln Transit Company	Port Authority Bus Terminal WISconsin 7-5550
Manhattan Transit Company	201 West 41st Street WISconsin 7-5550
Mountain Transit Lines	Port Authority Bus Terminal LONGacre 4-5444
National Trailways Bus System	8th Avenue and 41st Street LONGacre 4-8320
New York - Keansburg Long Branch Bus Line	Port Authority Bus Terminal LONGacre 4-8484
Port Authority Bus Terminal	LONGacre 4-8484
Short Line Bus System and Terminal	66 Essex OREgon 4-0514
Short Line Bus Terminal	1381 Jerome Avenue CYpress 3-6800

LETTER TO DIRECTOR

The Short Line Bus Terminal	241 West 42nd Street WIsconsin 7-5300
Union Bus Depot	245 West 50th Street Columbus 5-3000
Westwood Transportation Lines, Inc.	8th Avenue at 41st Street LIngacre 5-0375

RAILROAD TRANSPORTATION COMPANIES

Akron Canton and Youngstown Railroad Company	233 Broadway BARclay 7-7151
Alleghany Corporation	405 Lexington Avenue MURray Hill 4-7880
Alton and Southern Railroad	233 Broadway DIGby 9-3793
Ann Arbor Railroad Company	149 Broadway BARclay 7-9615
Art Company	99 Hudson WALKer 5-7265
Associated Railroads of New York State	466 Lexington Avenue MURray Hill 3-7477
Atchison Topeka and Santa Fe Railroad Company	Passenger Department 500 5th Avenue PENna 6-4400 Executive Offices - 120 Broadway WORTH 2-3111
Atlanta and West Point Railroad Company	342 Madison Avenue MURray Hill 2-5123
Atlantic and Danville Railroad Company	500 5th Avenue BRYant 9-2079

LETTER TO DIRECTOR

Atlantic Coast Line
Railroad Company

Executive Offices - 71 Broadway
Bowling Green 9-3160
Passenger Offices - 16 East 44th Street
Murray Hill 2-0800

Baltimore and Ohio
Railroad

Passenger Information and
Reservations - 122 East 42nd Street
OXford 7-3434
(12:30 to 7a.m. - Barclay 7-9670)
City Ticket Offices - 15 Columbus
Circle
Columbus 5-1054
42nd Street Coach Station
122 East 42nd Street
OXford 7-2150

Rockefeller Center Coach Station
15 Rockefeller Plaza
Circle 7-3678

Consolidated City Ticket Office
17 John Street
COurtland 7-0422

Liberty Street Station
Foot Liberty Street
BARclay 7-9700

Traffic Department - Passenger
122 East 42nd Street
OXford 7-3200
General Passenger Agent
OXford 7-3200

Executive Offices - 2 Wall Street
REctor 2-0370

Operating Department
25 Broadway
DIgby 4-1600

Police Department
39 N. River
WATkins 4-8680
(night and holidays
WATkins 4-8690)

LETTER TO DIRECTOR

Belgian National Railroads	589 5th Avenue Judson 6-1070
Bessemer and Lake Erie Railroad	500 5th Avenue Lakawanna 4-5792
Boston and Maine Railroad	230 Park Avenue Murray Hill 6-7740
British and Irish Railways	9 Rockefeller Plaza PLaza 7-3636
Brooklyn Eastern District Terminal	111 Broadway COurtland 7-0223 Executive Offices, same as above Main Terminal - 86 Kent Avenue, Brooklyn EVERgreen 8-8300
Burlington Lines	500 5th Avenue PENna 6-5815
Canadian National Railways	Passenger and Ticket Department 630 5th Avenue CIRCLE 6-7000
Canadian Pacific Railway Company	Passenger Ticket Office 581 5th Avenue PLaza 9-4433
Carolina Clinchfield and Ohio Railroad	41 East 57th Street PLaza 1-1158
Central of Georgia Railroad Company	233 Broadway WOrth 2-5252
Chesapeake and Ohio Railroad Company	Passenger - 500 5th Avenue CHickering 4-4910 233 Broadway WOrth 2-3400
Chicago, Aurora and Elgin Railroad Company	233 Broadway COurtland 7-7291

LETTER TO DIRECTOR

Chicago, Burlington and Quincy Railroad	500 5th Avenue PENNA 6-5815
Chicago and Eastern Illinois Railroad Company	233 Broadway COURTland 7-0923
Chicago Great Western Railway Company	230 Park Avenue MURray Hill 4-2763
Chicago and Illinois Midland Railway	535 5th Avenue MURray Hill 2-4127
Chicago Indianapolis and Louisville Railroad	233 Broadway WORTH 2-3090
Chicago, Milwaukee, St. Paul and Pacific Railroad Company	500 5th Avenue LONGacre 5-4414
Chicago and North- Western Railroad Company	500 5th Avenue LONGacre 5-4414
Chicago South Shore and South Bend Rail- road	233 Broadway COURTland 7-5980
Chilean State Railways	120 Broadway BARclay 7-9068
Delaware and Hudson Railroad Company	230 Park Avenue MURray Hill 9-8414 Passengers - same address MURray Hill 4-0552
Delaware Lackawanna and Western Railroad Company	Information - 140 Ceder BARclay 7-2500 Nights and Holidays - BARclay 7-2533 Passenger Agent - 500 5th Avenue LACKawanna 4-0234 Ticket Office - Ft. Barkely BARclay 7-2500 Ticket Office - 17 John COURTland 7-0820

LETTER TO DIRECTOR

Erie Railroad Company	General Offices - 50 Church Street WOrth 4-4500 Information - 50 Church-Street BARclay 7-6500 Passenger Agent - 11 Rockefeller Plaza CIRcle 5-7222 Ticket Offices - 11 Rockefeller Plaza CIRcle 5-7225 Ticket Offices - 17 John Street COURtland 7-6430
Grand Trunk Railway System	630 5th Avenue CIRcle 6-7000
Great Northern Railway Company	630 5th Avenue CIRcle 5-8328
Hudson and Manhattan Railroad Company	30 Church Street COURtland 7-3267
Jersey Central Lines	Information - Foot Liberty BARclay 7-9670
Lehigh and Hudson River Railway Company	500 5th Avenue PENna 6-3726
Lehigh Valley Railroad Company	Offices - 143 Liberty BARclay 7-5400 Passenger Agent, Penn. Station LONGacre 5-4021 Ticket Office - 17 John Street COURtland 7-1883
Litchfield and Madison Railway Company	25 Broad Street HANover 2-3885

LETTER TO DIRECTOR

Long Island Railroad

Information - Pennsylvania Station
PENna 6-5600
Offices - Jamaica Station
JAmica 6-0900
Station - Jamaica Station
JAmica 6-0900

New Haven
Railroad

Office - Grand Central Terminal
MUrray Hill 6-9100
Information - Grand Central Terminal
MUrray Hill 6-9100
Office - Pennsylvania Station
PENna 6-2000
Travel Bureau - Grand Central Terminal
MUrray Hill 6-0773
General Offices - Grand Central
Terminal
MUrray Hill 9-6300

New York Central
Railroad

Information - Grand Central Terminal
MUrray Hill 6-9100
Reservations - Grand Central Terminal
MUrray Hill 7-6600
Passenger Agent - 466 Lexington Avenue
MUrray Hill 9-5400
Ticket Offices - 17 John Street
Courtland 7-0400
Ticket Offices - 3 West 47th Street
PLaza 7-4300
Ticket Offices - Grand Central Terminal
MUrray Hill 9-8000
Ticket Offices - Ft. Courtland and
N. River
BARclay 7-2041
Ticket Offices - Foot 42nd Street
Longacre 3-0359

New York Ontario
and Western Railway
Company

39 Broadway
Longacre 3-2300

LETTER TO DIRECTOR

Pennsylvania
Railroad

General Offices - Pennsylvania Station
PEнна 6-6000
Information - Pennsylvania Station
PEнна 6-5600
Reservations - Pennsylvania Station
PEнна 6-2000
Passenger Traffic Office - Pennsylvania
Station/
PEнна 6-7230
Ticket Office - 17 John Street
BARclay 7-7600
Ticket Office - 3 West 47th Street
PLaza 7-1400

Pullman Company

Grand Central Terminal
MUrray Hill 9-0743
Pennsylvania Station
LOngacre 4-3074

Reading Railroad
System

Information - Foot of Liberty Street
BARclay 7-9670

Rock Island Railroad

Passenger - 500 5th Avenue
LOngacre 5-7071

Sante Fe Railroad

Passenger - 500 5th Avenue
PEнна 6-4400

Seaboard Air Lines
Railroad

Passenger - 12 West 51st Street
CIRCLE 5-7380

In connection with the study involved,
the New York Office has contacted Bell Laboratories, 463
West Street, New York, New York. Here, persons contacted
and interviewed consist of:

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LETTER TO DIRECTOR



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It should be noted that a similar phase of this problem has been discussed in the past with

[REDACTED] At that time the inquiry was directed primarily at the problem that was presented in a major kidnaping case. Interviews with the above men, along with various assistants consulted from time to time, resulted in the following information:

In the Bell system operating throughout the United States, there are five primary systems of handling switching traffic. They are as follows:

1. Manual
2. Panel
3. Step by Step
4. Number One Cross Bar
5. Number Five Cross Bar

For sake of clarity and organization, each switching system will be discussed under its own heading as set out above.

MANUAL SWITCHING

Manual Switching is usually employed in very small towns or in a very old system that may have since, due to growth conditions, become a part of a larger system but has not yet been converted to automatic equipment. In Manual Switching there are two general types of boards employed. In the instance where the

LETTER TO DIRECTOR

calling party reaches his operator and the operator asks for the number and then proceeds to jack in and ring the called party, there is a light which lights on the operator's board by which the calling party is identified and a corresponding number for the called party that is known to the operator. In this type of equipment an operator should be able to note calling and called parties upon being alerted. This type of manual equipment is known as the Number 11 Board.

In a little larger operation, the Number 1 Manual Board may be used in which event the answering operator (A) receives the called party's number and then jacks the call into the intra-office trunk to the number two operator (B). Operator (A) repeats the last four digits of the called number to Operator (B). She in turn jacks the line into the called number to complete the circuit. In this type of board, Operator (A), being appropriately alerted, should be able to provide information regarding calling and called numbers.

PANEL SYSTEM

The Panel System is generally used in very large cities involving complex switching operations. Listed below are some of the principle cities in the United States in which panel equipment is employed. They are as follows:

New York
Kansas City
Omaha
Philadelphia
Boston
Chicago
Detroit
St. Louis
Pittsburgh

In connection with Panel Switching, we will

LETTER TO DIRECTOR

set forth below the typical routing of a call from calling to called party:

Calling party takes phone from hook. The call arrives in the central office in the line finder frames. This circuit, upon arriving at the frame, constitutes a "tip and ring" circuit. In the line finder frame a third conductor is built into the system known as the "sleeve." At this point the call passes into the district selector. It should be noted that in connection with the lines at this point, that approximately ten subscriber lines are serviced by one district selector. From the district selector the call is routed into the sender and the marker. The sender next selects the routing of the call with respect to central offices. In the case of New York the sender responds to the first three digits dialed on the phone. The marker responds and stores all seven digits dialed. After the sender has analyzed the incoming call, the call is routed back through the district selector, from there to the district link frames through junctors and next to the office link frame. Now, if the calling party is calling a party that is serviced by the same central office, at this point the sender has designated that call to go into local office trunks. On the other hand, if the call is destined to another office, the sender, by this time, has directed that call to go into interoffice trunks. It should be pointed out, at this time, that the interoffice trunk may direct the call to another office where it is fanned out to the called party line or into a trunk that will feed into a tandem system from which the called party office is selected so that that office can select the called party line. Once this routing has been selected by the sender, the marker releases all seven digits that had been dialed. If the routing has been in local office trunks, the incoming equipment for the local office ignores the first three digits and responds to the last four digits in order to select the called party's number.

On the other hand, if the routing is into interoffice trunks, all seven digits are passed on to next office. We will describe the operation of this call onto

LETTER TO DIRECTOR

the incoming trunks as it would be handled from the local intra-office trunks. It should be noted that this handling would be the same in an interoffice trunk. Upon the call coming into the distributing equipment, the call is directed into the terminating sender equipment where it registers both in the terminating sender and in the terminating marker. When the call has arrived at this point in the office, the marker proceeds to work on the last four digits of the number back through the incoming trunk to the incoming link frame, from there to the line link where the called party's pair is fanned out and the call is thrown out on the "tip and ring" servicing the called party.

With respect to the "sleeve" circuit, it should be noted that the above described routing consists of tip, ring and sleeve from the line finder equipment of the calling party's central office to the office link frame of the calling party's central office and any routing of the call beyond the calling party's central office beyond the line link frame on either intra-office or interoffice cable is handled on "tip and ring" circuits.

It should be noted that the "sleeve" circuit in a Panel-type of operation is split at the district selector. The calling party utilizing the "sleeve" circuit from the line finder to the district selector is able to control the call up to that point. If the calling party has dialed a number that will connect him with his operator, he is connected with the operator in his central office whose connection operates off the office link frame. When his call arrives on her board, a light lights. She jacks into that call which, at this point, consists of the tip, ring and other side of the "sleeve" circuit. Upon jacking in she imposes a ground condition on the "sleeve" circuit which acts back to the district selector allowing her to impose control on the call. At this point both the calling party and the operator are able to control the call and this is known in telephone circles as "joint holding." The operator, although able to hold and control the calling party circuit so long as she is jacked in, has no information by which she can

LETTER TO DIRECTOR

identify the calling party's number. Once the condition of "joint holding" is set up, the call, in order to be released, must be unjacked by the operator and hung up by the caller. Once the operator unjacks the call, she has lost her controlling feature unless she is able to jack back into the circuit before the calling party hangs up.

In this equipment there is no way to trace the call from the called party back to the calling party except by manually tracing the conductors through the before-mentioned equipment by telephone central office personnel. Therefore, the calling party must be induced by some manner or means to hold up the equipment for sufficient time for such tracing. Inasmuch as the operators in the central office operating off the office link frame are many in number, they have no way of identifying any particular call that comes to their attention except by information furnished them by the calling party. The only way they can possibly identify the calling party would be to take advantage of their position in the "joint holding" feature and hold up the lines while the circuits are manually traced. Calls dialed by calling party directly to called party do not come to operator's attention.

Panel Equipment in New York is attached to message unit recorders. This device is essentially a veedor counter attached to the calling party's line that records message units depending upon distance dialed and time service is utilized. These message unit counters have no features built into them whereby they can be used to identify a called number inasmuch as they respond to the first three digits of the number whereby they determine the number of message units involved in the call and also respond to a time element for adding up additional message units for length of service. In connection with the use of Panel Equipment, any call that requires billing to a point beyond that which is recorded as message units is routed to an operator for handling. The operator ticket bills all calls going beyond the normal dialing area covered by Message Unit Counters.

LETTER TO DIRECTOR

It should be noted that approximately 50% of switching equipment used in metropolitan New York is Panel-type equipment.

STEP BY STEP EQUIPMENT

Step by Step Equipment is usually used in almost any city where dial equipment is used although it was not originally designated for most suitable for very large cities. Some of it is found in very large cities due to the growth picture since installation. It is generally considered most suitable for small city operation. The Step by Step system is similar to Panel in operation and function, having the same basic components, as described above under Panel. One noticeable difference in Step by Step Equipment is that the "sleeve" circuit has continuity from the line finder equipment to the office link frame in the calling party's central office. It will be noted that most Step by Step Equipment is operated in conjunction with other central office systems that may be either Step by Step or one of the other three automatic systems. In event there is multiple central office operation, the calls leaving the office link frame again go into inter or intra-office trunks whereby the "sleeve" terminates and tip and ring circuits continue to the other central office or into terminating equipment in which event you have the same basic problem of trying to control the calling party's circuit from the called party's position. This has been described under Panel Operation.

One interesting feature of Step by Step operation, which may, on rare occasions be of interest, investigatively, is the instance when a city is serviced by one central office, that is, Step by Step. In this type of installation it can be expected that the "sleeve" circuit will commence at the line finder and have continuity beyond the office link frame to the line link frame so that it would be possible in this instance to possibly couple a shorting relay, a controlling relay and a switch to the "sleeve" at the line link frame on the called party's line and be able to establish the "joint holding" feature at will

LETTER TO DIRECTOR

between the called and calling party.

With respect to the other phase of the Step by Step Operation, it will be noted that billing by use of message unit counters and the use of operators into a toll area, is the same as described in Panel Operation.

It should be noted in the greater metropolitan area there is only a negligible percentage of equipment of Step by Step type, however, a great amount of Step by Step Equipment operates in the suburban communities.

NUMBER ONE CROSS BAR EQUIPMENT

Number One Cross Bar Equipment is normally found in large city operations where the switching problems are complex and involved. Number One Cross Bar is very often associated in large cities with Panel-type equipment. Number One Cross Bar will normally be rarely found in a smaller town. Number One Cross Bar has the same general features in the "sleeve" circuit, as far as function is concerned, as does the Panel system, it being noted that the "sleeve" circuit is split at the district selector and its function there with respect to calling party and operator is the same as in Panel. The "joint holding" characteristics here again are the same as in Panel. It should be noted that Number One Cross Bar Equipment, however, has one feature that can be of interest, investigatively, in that this equipment has trouble scanning circuits applied in the central office and it is possible to impose "fake" trouble on a victim's line that will trigger the trouble scanning equipment and might assist to a small extent in tracing a given call. A typical way to set up such a "fake" trouble without imposing a noticable difference in performance characteristics of a victim's line would be to impose a resistor in the order of 1,000 to 6,000 ohms on the tip side of the line to ground. This having been done on Number One Cross Bar Equipment it will cause lights to light on the trouble board whereby any call coming into a line so altered can be traced back to the incoming trunk. Any tracing of a given call

LETTER TO DIRECTOR

beyond that point would have to be done manually as has been described above wherein the calling party is the only person who can hold the circuit intact.

It should be noted that personnel assigned to the trouble board must be alert in order to catch these trouble indicator lights that come on for a short duration in order to identify the incoming trunk.

It should be noted that most of the Number One Cross Bar Equipment in the greater New York area operates on the message unit recorders, however, a small per centage in this general area may use AMA Tape Recording for billing purposes.

Another point to consider with respect to Number One Cross Bar is that since the advent of toll dialing (long distance) some Number One Cross Bar Equipment has been modified by the addition of other elements to the sender and marker units so that these units are capable of handling ten digits and this being the case certain so modified Number One Cross Bar Equipment is used throughout the country in toll dialing operation. Wherever toll dialing is utilized, AMA Tape billing is also utilized, however, AMA Tape billing may be utilized on certain Number One Cross Bar Equipment that is not necessarily used on toll dialing. Wherever AMA Tape account is used, it may function either under what is termed "Bulk Billing" or "Detailed Billing." The AMA Tape function under "Bulk Billing" is similar to the message unit counter in that the tape records calling number and message unit cost and time without recording the called number and other details of that nature. AMA Tape, by quite simple change in connection, can be converted from "Bulk Billing" to "Detailed Billing." This can be done by central office personnel in a matter of a fairly short time duration merely by changing the setting of the equipment. When the Tape is set for "Detailed Billing" it then records calling number, called number, time the call is answered and time the conversation is completed. These tapes are normally processed in what is called billing rounds at regular tape processing centers on time intervals of three

LETTER TO DIRECTOR

to five days. The AMA Tapes are usually taken off the machines once every twenty-four hours at some low traffic period, for example, 3 a.m. The AMA Tapes, where they are used, are usually set up in a ratio of one tape to 100 trunks. It should be noted, therefore, that if tape is used in "Detailed Billing", that it would be possible to determine the calling party from such a tape provided the call originated in a central office using tape. Any arrangement for cutting of AMA Tape at odd time and searching for a given call would be an investigative problem to be resolved with the local telephone management. Although these tapes are normally processed by machine, employees skilled and familiar with the tapes can visually identify a given called number and calling number. It should be noted that the notations on the AMA Tapes are in code and can only be read by personnel who are thoroughly familiar with the equipment.

Whenever AMA Tape is used in connection with modified Number One Cross Bar Equipment, it is likely the equipment is being used for toll dialing and the tape is recording "Detailed Billing." Thereby any central office having this kind of an operation would present the possibility of providing calling and called numbers.

It should be noted that approximately 50% of dialing equipment operating in metropolitan New York is Number One Cross Bar.

NUMBER FIVE CROSS BAR EQUIPMENT

Number Five Cross Bar equipment is designed for and usually used in suburban central office operations. Recent trends in application practices, however, have indicated tendencies toward the use of more of this type of equipment in complex operations in large cities.

LETTER TO DIRECTOR

One of the contributing factors toward the increased use of Number Five Cross Bar Equipment is that it incorporates in its basic design, sender and marker equipment capable of handling ten digit numbers and readily lends itself to AMA Tape billing. Number Five Cross Bar Equipment, like all other switching equipment, contains the same essential elements in routing a call from calling to called party as was set forth under the description on Panel Equipment. The "sleeve" circuit on Number Five Cross Bar Equipment is functionally similar to Step by Step inasmuch as there is continuity between the line finder and the office link frame. On Number Five Cross Bar Equipment there is the "joint holding" feature between calling party and operator when she has been dialed and has jacked in. Continuity here again is established by imposing a ground on the "sleeve" circuit which in turn serves to hold up the equipment. This applies only in the calling party's central office and does not function beyond that point nor is the operator here able to identify the calling party's number without it being physically traced out through the circuits. An interesting feature that is unique to Number Five Cross Bar Equipment is the manner in which trouble can be traced. Here, similar to Number One Cross Bar Equipment, it is possible to impose a resistor between tip and ground in the order of 1,000 to 6,000 ohms and thereby trigger the trouble scanning equipment on any call coming to a given victim's home.

In the case of Number Five Cross Bar Equipment, the conductors and cables involved are punched out on a punch card automatically as the trouble indicator is triggered; however, here, as in the instance of Number One Cross Bar, information punched out carries a tracing back as far as incoming trunks. The tracing of a call beyond that point again presents the problem of physically tracing conductors on a circuit under the sole control of the calling party.

It should be noted that Number Five Cross Bar Equipment, due to its inherent characteristics,

LETTER TO DIRECTOR

being designed for suburban operation, is usually used in connection with toll dialing operations utilizing AMA Tape, billing, recording a "Detailed Billing" for each subscriber. Here again the general characteristics of "Detailed Billing" that have been described above with regard to calling and called numbers as well as time element exist as investigative possibilities that can be explored in connection with a given case.

When the AMA Tape is used on a suburban phone, usually the subscriber has a certain "flat billed" area. That is to say that within a certain area he can dial at will an unlimited number of calls without affecting his bill. This type of traffic is not usually taped on the AMA Tape and only traffic into areas beyond the "flat billing" area wherein a message unit charge or toll is involved would be taped. The problem with regard to identifying a call on the tape and processing of tapes is the same on Number Five Cross Bar as has been described previously.

It will be noted that within New York City there is one central office operating on Number Five Cross Bar. This office is a small one serving a certain area in which a great number of important people reside.

COIN OPERATED PHONES

No attempt has been made heretofore to describe coin operated phones with respect to the various switching equipment, however, it will be treated herein as a separate point of interest.

In New York City, coin operated phones operate as calling party controlled dialing within a given area for "one unit message" calls. If a call is placed by coin operated phone into an area where charges are two or more message units (local toll) the dialing of the first three digits causes the call to be directed to the local toll operator in the calling party's central office. A light flashes on her board and she jacks in and collects the increase toll then allows the call to go through. These calls are also on a timer and

LETTER TO DIRECTOR

if the calling party uses the circuit longer than allotted time, again the local toll operator is called into the circuit by her light in which event she jacks in and requests the calling party to make additional deposits of money.

It should be noted that the operator, while jacked in on coin phone, cannot disconnect the calling party nor can she identify the calling party's number or called party's number, however, she can split the circuit between the calling party and the called party pending receipt of appropriate money. It should be noted, however, in connection with coin phones, when the local toll operator is jacked in the condition of "joint holding" exists.

As a general practice with respect to coin phone use outside New York City and throughout the country, the calling party deposits his money, dials his number and controls the circuit. If the call being made is beyond the usual flat rate area or message unit area, the caller is immediately referred to the operator and in this instance he gives the called number to the operator, she places the call and, upon obtaining the called party, requests the calling party to deposit his money. In this type of operation, the calling party and the operator have "joint holding." On this type of coin operation on calls dialed directly by calling party, the operator is in no way involved. Call timing is believed to be used in New York City only. In this type of operation, any call made from exchange into exchange outside normal dialing area, is handled by operator and is essentially a manual operation. On this type of call the called party can signal the operator by quickly depressing the cradle switch which causes the operator's light to flash. This will impose a click into the calling party ear piece.

LETTER TO DIRECTOR

It should be noted that coin phones operated in connection with Number Five Cross Bar Equipment do not operate through the AMA Tape. It would be possible, however, to modify the Number Five Cross Bar central office so that all coin phones would be trafficked into "Detailed Billing" on AMA Tape. In order to do this, however, it would require an estimated time of several weeks plus additional equipment and possibly a considerable expense to make such a conversion. This, however, is considered by the Bell Laboratory to be within the realm of engineering possibilities on this particular type of equipment.

One point of interest from the standpoint of investigative possibilities which is under consideration for study by the Bell Laboratory, at this time, is the possibility of establishing "joint holding" features between the calling and called party on Number One Cross Bar and Panel-type equipment. It is the opinion of some of the switching engineers that certain circuits controlling relays in the district selector of the calling party's office could be modified so as to respond to an "off the hook" condition of the called party's phone and affect "joint holding." If this could be made to work satisfactorily, it would give the calling and called party the "joint holding" feature that could extend the time that the circuits are connected up so that physical tracing could be affected. Inasmuch as this would involve the district selector in the calling party's central office, all district selectors on Panel and Number One Cross Bar Equipment would have to be so modified so that the particular line from which the call originated could be held up. This, it is believed, if it can be worked out into final form, may only require a day or two per central office to make modification. This, however, would present a tremendous job for a big operation such as New York City; however, the magnitude of the job, if the system proves of value, could be lessened by the fact that coin operated phones are generally grouped together in groups so that district selectors operating coin operated phones could be selectively separated from other subscribers. It is

LETTER TO DIRECTOR

believed that past experience has established a tendency on the part of a criminal to hide behind what he considers the safety of a coin operated phone. This type of approach may be somewhat more reasonable in magnitude. One of the main obstacles presented here would be that such a modification would be contrary to policy of operating companies in that it would make possible the jamming of phones by calling and called parties leaving phone off the hook. This so-called jamming effect would in reality amount to the rendering of selective and routing equipment useless to telephone service. Even though such an approach proved feasible, there would be a problem as to what extent the local operating company would agree to unorthodox procedure.

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[redacted] of the Bell Laboratory, has agreed to advise the New York Office in more detail with regard to his findings in this regard. It should be noted that the Bell Laboratory has displayed a most sincere and conscientious interest in the problem and they have circularized their engineering and design departments soliciting ideas or methods that might help to resolve what they have termed "nuisance" calls by being able to back trace such calls from called party to calling party. It should be noted that the character of the case that might be involved or the FBI has not been identified in this Bell Laboratory circularization.

The following is a result of an interview with [redacted] New York Telephone Company, 140 West Street, New York, New York:

In the interview with [redacted] it will be noted that the questions set forth in above-referenced letter to SAC, Boston, were covered in the order set forth in the letter, therefore, for sake of brevity, discussion and answers to questions will be set forth by numbers corresponding to the questions in above-referenced letter:

LETTER TO DIRECTOR

1. There is no given pattern as to type of switching equipment used in New York City in a given area or serving a given type of customer. In general, approximately 50% of switching equipment is Panel and approximately 50% of equipment is Number One Cross Bar. There is, however, a very small amount of Step by Step and one central office on Number Five Cross Bar.

2. The procedure for back tracing phone calls used over many years and arrived at by literally thousands of requests for this type from law enforcement agencies is as follows:

The called party calls Traffic Emergency Bureau and reports called phone number and request ~~for~~ tracing. Traffic Emergency Bureau calls chief operator in the "called" central office. Chief operator calls central office supervisor who assigns switchmen to make ~~physical~~ tracings. Switchmen pick up called party's pair traced back to incoming trunk. Trunk circuits are traced then to the originating office equipment where the line is physically traced to the line finding equipment and to the actual line originating the call. It is estimated that if the calling party and the called party are both located in the central office and some forewarning can be established with respect to availability or personnel for such a tracing, that it might be possible to make the above-mentioned tracing in five minutes. However, if the call involves another office and has to be back traced through interoffice cables, tracing would again, be noticeably increased and under most favorable conditions might be accomplished in ten minutes. If, however, the back tracing is established to have gone through one or two tandem operation, even under most favorable conditions, the tracing time is greatly increased and, for all practical purposes, in most instances, cannot be expected to accomplish much.

3. There are no known aides to assist in back tracing a telephone call to the point of origin. The "fake"

LETTER TO DIRECTOR

trouble that may be imposed on Number One Cross Bar and Number Five Cross Bar Equipment has already been discussed under interview with Bell Laboratory. This system is known to the New York City operating company.

4. There is no system known whereby the called party can control the call. There is no way it can be done on a two wire system "tip and ring."

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[redacted] did discuss the possibilities of the called party being able to have a "joint holding" feature on Step by Step Equipment in a one central office operation. Details of this has been discussed and will not be repeated here.

5. In New York City local toll calls are charged against the customer by ticket billing on which ticket the operator notes calling number, called number and time. The number entered hereon as the calling number is the number given to the operator by the calling party. She has no method of assuring accuracy. In the normal dialing area, for a given phone, the calling customer dials the number direct and it is talled up on a message unit register which counts message units. There is no known method whereby this message unit can be used to assist in these investigations. Any dialing from a given station beyond the area covered by the message unit register involves an operator as described above and ticket billing.

6. The Telephone Company does have dial areas zoned. These areas fall under the "Message Unit Counts."

7. In Manhattan there are no flat rate areas. The dialer is charged on the basis of message units. The dialer can call a given area for one message unit that would generally be the equivalent of a flat rate area where flat rate is used. In some outlying areas around New York City the flat rate system is used in connection with

LETTER TO DIRECTOR

Number Five Cross Bar Equipment and AMA Billing tape. In these areas, all Panel and Step by Step Equipment, where it is used, flat billing may be used for the local area and message unit counters for calls of greater distance. In these outlying areas where Number One Cross Bar is used, it is quite likely that message registers are used. Some Number Five Cross Bar is on tape, however, it is not known whether all of it is on tape at this time.

8. In New York City a long distance toll call is directed through long distance operators and the call is ticketed. There is, however, one Number Five Cross Bar central office in the vicinity of 79th Street on the East Side in which area a great number of influential people live. In this central office the subscribers utilize toll dialing and AMA Tape Billing.

9. In New York City, except for the one Number Five Cross Bar central office, all accounting is done by either message unit registers or ticketed billing by the operator. In the outlying area the system is mixed, depending upon the central office in that it may be part flat rate, part message register, part "Bulk Billing" and part "Detailed Billing."

10. Where AMA Tape billing is used, the punch cards ^{are} run off from the tape and retained one month after billing. The tape from which the punch cards are run are retained two months after billing.

11. There is no accelerated method by which accounting machine data can be reviewed in the normal processing of tape. As a general practice where tape is used, it is cut at 2 a.m. daily and immediately reduced to punch cards. Normally these punch cards could be sorted within 24 hours to select callers of a given called number. This, however, would only be applicable to calls originating in Number Five Cross Bar offices.

LETTER TO DIRECTOR

12. The accounting tapes for this general area are processed at 117 East 167th Street, Bronx, New York, and 101 Willoughby Street, Brooklyn, New York.

13. The accounting centers cover the general metropolitan area using automatic billing equipment, where it is used in Westchester County and Long Island.

With respect to direct dialing into New Jersey, it will be noted that in New York one can dial 11 from certain central offices prior to dialing a given number in certain areas of New Jersey. In this case the calling party, by dialing 11, causes his call to be directed into the New Jersey tandem where a tape is made recording the calling and called number. The calling number in this instance, however, is keyed into the tape by the operator who intercepts the call on the basis of a signal light and inquires of the calling party as to his number. The call keyed into this tape by the operator is the number given by the calling party and the operator has no method of being assured that the calling party provides her with an accurate number. A similar system operates in New Jersey with respect to persons calling New York.

With respect to calls from New York to New Jersey from coin operated phones, it will be noted that all of these calls are routed through the local toll operator who intercepts the call and pronounces charges on the basis of district being called and if the money has been deposited, in the phone, releases the number to go through. She likewise has no means of determining the calling number.

With respect to coin operated machines through either Panel or Number One Cross Bar, the calling

LETTER TO DIRECTOR

party controls the circuit until a given amount of time has been consumed. With respect to a one unit message call this time is five minutes. On a call that would constitute a local toll call, the time before interception is three minutes. In either event, when the allowed time has been consumed the call automatically flashes up on the "service operator's board" where a light lights. She jacks into this call during which time she and the calling party have "joint holding." This service operator, however, is similar to long distance operators and central office operators inasmuch as she cannot identify the calling or called number. She can, however, hold the circuit up for proper deposit of money or if she were requested, could hold the circuit up for time for manual tracing. However, there are many of these operators working at once and it would be impossible for anyone of them to identify which call being handled that might be of investigative interest.

With respect to transportation companies, a list of which is set forth above, it will be noted that most of these companies operate through standard PBX boards and manual distributions within their own premises. However, some of these companies have installed automatic distribution equipment on customer service lines wherein no PBX operator is involved. Some of the companies who have installed this type of equipment are TWA, American Airlines and Mohawk Airlines. It will be noted that Eastern Air Lines has one of the largest installations and it is manually controlled. There is some thought at the present of putting in automatic distribution equipment on Eastern Air Lines.

This office will follow the possibilities of "joint holding" on Panel and Number One Cross Bar Equipment as it is being explored by Bell Laboratory and advise the Bureau of the results of these findings.

Office Memorandum • UNITED STATES GOVERNMENT

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TO : DIRECTOR, FBI

DATE: 4/13/57

FROM : SAC, LOS ANGELES (66-119)

ATTENTION: ELECTRONICS
SECTION, FBI
LABORATORY

SUBJECT: TRACING TELEPHONE CALLS

Re Bureau letter to Boston dated 3/28/57 regarding captioned matter.

[redacted] Supervisory Special Agent, Pacific Telephone and Telegraph Company (PT & T), Los Angeles, California, furnished the answers to the 13 listed questions in referenced Bureau letter. The answers will be furnished chronologically according to questions as set forth in referenced Bureau letter.

1). The type of central office switching equipment used in areas serving airlines, etc. used by PT & T is machine switching, step by step system, which means that as each number is dialed that number dial selects its own line finder until the entire number is found and then rings through to the party called.

2). All tracing of telephone calls by PT & T is done manually. Under a recent edict within the telephone company itself no arrangements can be made with the PT & T office in Los Angeles to monitor a line prior to a trace even though it is known that a call is going to be made to a certain number at a certain hour. It is necessary, therefore, to first announce to the telephone company that the call is already on the line and then furnish them the telephone number or the trunk number if it is a switchboard line. The tracing is then done manually by a switchman who by visual observation traces the line from switch to switch, and if it goes then on another exchange he must call the switchman in that exchange and the second switchman traces it by visual observation in the same manner.

3). PT & T at Los Angeles does not have any mechanical, electrical or electronic aids to rapidly trace a call to the point of origin.

3 Bureau (Air Mail - Registered)
1 Los Angeles (66-119)

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4). Prior to the modification of the connectors used in the step by step system in Los Angeles the telephone company was able to seize control of a conversation; however, that is not true today. Within one telephone exchange if the telephone company grounds the sleeve at the connector they can control or seize control of a line if the calling party is also within the same telephone exchange; but if it goes to another exchange that seizure is lost at the connector because at that point a third line or ground line is added to the connector over which there is no control by grounding the sleeve.

5). Local toll charges may be charged to the subscribers in one of two methods: a). If the call is placed with an operator a ticket is made and punched on a time clock showing also the party called, the date, and from this ticket a clerk rates the amount of the call to the calling party's number. b). Local toll charges may also be charged to a subscriber's number by use of an automatic ticketing system whereby the called number, the calling party's number, the time, date, and length of conversation are all placed on an IBM card, which IBM card is then tabulated and charged to the subscriber. It should be pointed out that local telephone charges in the entire Los Angeles metropolitan area are known as message unit calls.

6). Dial areas in the Los Angeles metropolitan area are all zoned.

7). Calling from the main or downtown area of Los Angeles, a subscriber may make a call without being charged with a local or long distance call to several exchanges even though they may not be contiguous. For example, a call placed from the Los Angeles Field Division Office to Beverly Hills, California, where in order to get the call through it goes through three different exchanges and the Beverly Hills exchange is not contiguous to the Los Angeles Field Office exchange this would not be charged as a local toll.

In the outskirts of Los Angeles, however, a subscriber may make calls only to the zone in which he resides or to a telephone exchange or zone which is contiguous. For example, a subscriber residing in Hawthorne, California, may

call a number in Inglewood, California, which is another zone, but that zone is contiguous and no charge is made; however, should the subscriber in Hawthorne, California, dial a number in metropolitan downtown Los Angeles such a call would be charged as a local message unit call.

8). Long distance toll charges are charged to a subscriber by a rate clerk who takes the time from a toll ticket made up by the long distance operator at the time the call is placed. It should be pointed out here that PT & T at Los Angeles is presently beginning to install what is known as the "five crossbar" system in order to facilitate long distance dialing without the use of a toll operator. In this system the call is tabulated on a large revolving tape which in turn is fed into an automatic ticketing machine, and in this system the calling party, the time, etc. are not recorded.

9). As pointed out previously, where the automatic ticketing system is used the message units are charged to a subscriber by use of an IBM card which would tabulate the called party, the calling party, the time, date, and length of conversation; however, where the five crossbar system has been established (and the Webster exchange covering Beverly Hills does have this system installed) only the amount of the call is recorded on the large tape and ticketed to the calling party's number.

10). Message units or local toll calls are kept for 30 days. Long distance toll charges are kept by PT & T for six months.

11). PT & T at Los Angeles does not have any accelerated method for reviewing accounting machine data.

12 and 13). Machine accounting records in the Los Angeles area are decentralized. For example, the exchanges in the San Fernando Valley, Glendale, Burbank, and North Hollywood records all flow into a machine accounting records center in North Hollywood. Metropolitan downtown Los Angeles has its own accounting office. There are similarly accounting offices in Alhambra and Huntington Park, California, which cover outlying areas.

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI
 FROM : SAC, SAN FRANCISCO (66-672)
 SUBJECT: TRACING TELEPHONE CALLS

DATE: April 15, 1957

JUNE

Re Bulet March 28, 1957.

In accordance with Bureau instructions in referenced letter, [redacted] was contacted and furnished the following information:

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1. The type of central office switching equipment used in areas serving airlines, bus terminals, and railroad stations and reservation offices.

No. 1 Cross Bar Offices.

2. What method does the telephone company use to trace a telephone call from the destination to the point of origin?

Telephone number that call is coming in on is given to the Switchman who back-traces through the equipment. (JU 8-0015 or PL 6-0015)

3. Does the telephone company have mechanical, electrical or electronic aids to rapidly trace a call to the point of origin? If so, describe in detail, furnishing equipment or part numbers.

No automatic equipment can be used on these lines due to the large number of incoming calls to the Airport.

4. Do they have any system, circuit or method whereby the called party's telephone can seize control of the line once a conversation path has been established? In this connection some step-by-step systems have facilities whereby the called party's line can seize the line by grounding the sleeve at the connector.

This method is only possible on small step-by-step offices. Not possible in Cross Bar Offices.

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DIRECTOR, FBI
SAC, SAN FRANCISCO
TRACING TELEPHONE CALLS

JUNE

5. What accounting method is used to charge subscribers with local toll charges?

Customers are charged by message units or flat rates for resident services.

6. Do they have dial areas zoned?

Yes.

7. What area, or how far may a subscriber make a call without being charged a local or long-distance toll?

Sharp Park and Juniper area of San Francisco, coin and otherwise, can dial direct.

8. What accounting method is used to charge subscribers with long-distance toll charges?

Long-distance (211) calls are operator ticketed.

9. If automatic accounting systems are employed, what data are recorded by the machine on "unit" calls and local toll calls?

Centralized Automatic Message Accounting (CAMA) is used for local toll calls. Only the calling number and message units are recorded.

10. How long is the original account machine data retained before being destroyed?

Sixty days.

11. Do they have an accelerated method for reviewing accounting machine data whereby all calls to a subscriber's number can be selected with a view of determining the called party if the date and time of call are known?

Called number not recorded on CAMA tape.

12. Where are machine accounting records processed?

CAMA tapes are processed at the AMA Center,
3333 - 25th Street, San Francisco.

DIRECTOR, FBI
SAC, SAN FRANCISCO
TRACING TELEPHONE CALLS

JUNE

13. What area does the accounting center cover?

CAMA tapes are processed either at the San Francisco Center, 3333 - 25th Street, or at the East Bay Center, 1587 Franklin Street. These two centers cover Northern California.

The San Francisco Center, generally speaking, processes the tapes from exchanges from coastal cities.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI

FROM : SAC, Detroit (66-2174-323)

DATE: April 15, 1957

SUBJECT: TRACING TELEPHONE CALLS JUNE

Attention: Electronics Section, FBI Laboratory

Re Bulet to Boston, cc Detroit, captioned as above, and dated March 28, 1957.

The following are the results, as furnished by [redacted] regarding the facilities of the Michigan Bell Telephone Company pertaining to questions set out in reference letter. These answers are set out in the same order as presented.

b7D

1. Areas serving airlines, etc. involve the following exchange, respective central office switching equipment, and general location:

Central Office	Type Equipment	Location
A. Woodward 1	Panel	Downtown Detroit
B. " 2	"	" "
C. " 3	"	" "
D. " 4	"	" "
E. " 5	#1 Crossbar	" "
F. TAshmoo 5	Panel	15th & Michigan Avenue, Detroit
G. TRinity 5	Panel	Grand Blvd. & Woodward, Detroit
H. Hunter 2 & 3	# 5 Crossbar	Ypsilanti, Michigan (Willow Run Airport)

EX 105
3 - Bureau (Encls. - 3) (REGISTERED)
1 - Detroit

RECORDED-32

RMR:ljl

(4)

6 MAY 13 1957

b6
b7C

2. Tracing of calls from destination to point of origin is done by manual means only.

3. They do not have any mechanical or electronic aids to assist in the rapid tracing of calls.

4. In the exchanges set out under item number one there is no provision for seizing control of a line in the called party exchange.

5. Local toll charges or additional message units are charged to subscribers by means of "Centralized Automatic Message Accounting", (CAMA).

6. Yes, dial areas are zoned.

7. The areas or zones between which subscribers may make local or long distance toll calls without being charged is irregular.

To simplify this problem, [] furnished photostatic copies of pages 4, 5, & 6 from his commercial manual pertaining to message unit rates and zones. These photostatic copies are being furnished to the Bureau as enclosures to this communication.

b7D

8. Two accounting methods are used in the pertinent exchanges to charge subscribers for long distance toll charges. One method is through the long distance operator who prepares a toll ticket, and the other is the CAMA method.

9. CAMA charges on interzone calls are tabulated as message units only. On extended area calls, CAMA tabulates the calling party number, the called party number, the time, date, and charge.

10. The original accounting machine data is retained for six months.

11. There is no accelerated method for reviewing CAMA accounting machine data. The original tapes are run for three day periods.

DE 66-2174-323

12. The pertinent CAMA tabulations are processed in the TRinity district office located at 105 East Bethune, Detroit, Michigan.

13. The Detroit CAMA processing center covers all of metropolitan Detroit.

SAC, Honolulu (66-613)

May 6, 1957

Director, FBI

JUNE

TRACING TELEPHONE CALLS

Rebulet to Boston 3-28-57 and urlet 4-11-57 captioned as above.

In response to question number four you advise that the telephone company on the Islands has never used the "annoyance call holding repeater circuit 61175 manufactured by Automatic Electric Company." It is desired that you ascertain why this equipment has never been installed, the technical problems involved in effecting the installation and the estimated cost per line for the equipment and labor installation cost per line. It should be determined if an auxiliary push button switch can be added to eliminate the necessity of the called party dialing "1." Also ascertain if this lockup feature can be accomplished without calling party hearing the keying pulse.

This matter should be afforded prompt attention.

CKC:ART
5

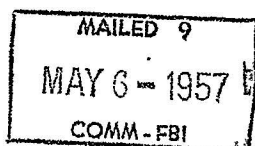
Rem

~~Note: Memo [redacted] to Parsons re Tracing Telephone Calls, dated 4-15-57.~~

~~CKC/art~~

RECORDED-5

Honolulu letter 4-11-57 already in file.



EX 105

MAIL ROOM

MAY 9 1957

Tolson _____
Nichols _____
Boardman _____
Belmont _____
Mason _____
Mohr _____
Parsons _____
Rosen _____
Tamm _____
Nease _____
Winterrowd _____
Tele. Room _____
Holloman _____
Gandy _____

b6
b7C

20 MAY 7 1957

F B I

Date: 4/25/57

Transmit the following message via AIRTELREGISTERED MAIL

(Priority or Method of Mailing)

To : Director, FBI (80-789)

From: SAC, Philadelphia (66-1042)

Subject: TRACING TELEPHONE CALLSAttention: Electronics Section
FBI LaboratoryRebulet to Boston 3/28/57, Philadelphia letter 4/11/57,
and Bureau airtel 4/24/57.b6
b7C
b7D

On 4/24/57, [redacted]

[redacted] a confidential source,
was again contacted concerning the information requested in
referenced Bulet to Boston. [redacted] advised that he still
had not obtained all of the desired information and was awaiting
information concerning the accounting procedures.Upon receipt of this information from [redacted] it
will be forwarded immediately to the Bureau.

[redacted]

- 3 - Bureau (80-789) RM
1 - Philadelphia (66-1042)

WEH:JMB
(4)

No reply necessary c/w 4/29/57

Mr. Belmont

Mr. Parsons

RECORDED - 80

cc. Mr. Belmont
Mr. Boardman

EX-132

MAY 1 1957

MAY 3 3 03 PM '57

SEARCHED
SERIALIZED
INDEXED
FILEDApproved: CEH
Special Agent in Charge

Sent _____ M Per _____

Mr. Tolson	_____
Mr. Nichols	_____
Mr. Boardman	_____
Mr. Belmont	_____
Mr. Mohr	_____
Mr. Parsons	_____
Mr. Rosen	_____
Mr. Tamm	_____
Mr. Winterrowd	_____
Tele. Room	_____
Mr. Holloman	_____

J U N E

4/25/57

AIRTEL
REGISTERED MAIL

To : Director, FBI (80-789)
From: SAC, Philadelphia (66-1042)
Subject: TRACING TELEPHONE CALLS

Attention: Electronics Section
FBI Laboratory

Rebulet to Boston 3/28/57, Philadelphia letter 4/11/57,
and Bureau airtel 4/24/57.

On 4/24/57/

[redacted] a confidential source,
was again contacted concerning the information requested in
referenced Bulet to Boston. [redacted] advised that he still
had not obtained all of the desired information and was awaiting
information concerning the accounting procedures.

Upon receipt of this information from [redacted] it
will be forwarded immediately to the Bureau.

3 - Bureau (80-789) RM
1 - Philadelphia (66-1042)

WFH:JMB
(4)

Mr. Tolson	
Mr. Nichols	
Mr. Boardman	
Mr. Belmont	
Mr. Mohr	
Mr. Parsons	
Mr. Rosen	
Mr. Tamm	
Mr. Trotter	
Mr. Nease	
Tele. Room	
Mr. Holloman	
Miss Gandy	

1243

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b7D

APR 25 3 23 PM '57
FBI PHILADELPHIA

RECEIVED TELETYPE UNIT
80-789-29

APR 25 1957

SAC, Boston

April 25, 1957

Director, FBI (80-789)

JUNE

TRACING TELEPHONE CALLS

Pursuant to the request in your letter 4-12-57 there are being returned herewith annoyance call circuits and descriptive data for installation of the circuits in step by step systems. This material is being returned for appropriate disposition.

Enclosures (3)

*orig incoming
from. Sent to file.
JWS*

CKC:ART
5

RECORDED-31

80-789-28
20 APR 26 1957

EX-132

3 APR 26 1957

Tolson _____
Nichols _____
Boardman _____
Belmont _____
Wason _____
Mohr _____
Parsons _____
Rosen _____
Tamm _____
Tracy _____
Winterrowd _____
Tele. Room _____
Holman _____
Gandy _____

MAILED 9
APR 25 1957
COMM - FBI

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI

DATE: April 18, 1957

FROM : SAC, SAN FRANCISCO (66-672)

SUBJECT: TRACING TELEPHONE CALLSATTN: ELECTRONICS SECTION,
FBI LABORATORYJUNE

Re Buairtel April 16, Bulet to Boston, March 28, and
San Francisco letter to the Bureau, April 15, 1957.

In accordance with the request of the Bureau in
referenced letter March 28, 1957, San Francisco submitted
requested information in referenced letter of April 15, 1957.

2-Bureau (AIR MAIL - REGISTERED)
1-San Francisco (66-1851)
1-San Francisco (66-672)
MMD:pp
(4)

no reply necessary c/c 4/23/57

RECORDED-48

EX-131

6 APR 30 1957

24 APR 22 1957

b6
b7c

APR 22 1957

SAC, Miami

April 19, 1957

Director, FBI

JUNE

TRACING TELEPHONE CALLS

Rebulet to Boston 3-28-57 and urlet 4-3-57 captioned as above. It is desired that you contact the Peninsular Telephone Company, St. Petersburg, Florida, for the same information outlined in referenced letter of 3-28-57. If there exists a reason why this company should not be contacted the Bureau should be advised.

This matter should be afforded expeditious attention and your reply directed to the Electronics Section, FBI Laboratory.

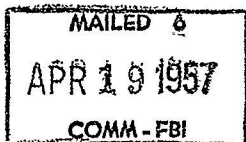
CKC:ART
5

Original sent to file previously as part of survey.
Additional information now desired, resulting in this request.

Tolson _____
Nichols _____
Boardman _____
Belmont _____
Cason _____
Mohr _____
Parsons _____
Rosen _____
Tamm _____
Nease _____
Winterrowd _____
Tele. Room _____
Holloman _____

EX 105

RECORDED - 86



APR 22 1957

APR 25 1957

SK
SAC, Los Angeles (66-119)

Director, FBI

April 18, 1957

TRACING TELEPHONE CALLS

JUNE

Rebulet to Boston 3-28-57 and urlet 4-13-57 captioned as above. It is desired that you contact the General Telephone Company of California, California Water and Telephone Company and the Sunland Tujunga Telephone Company for the same information outlined in the referenced letter of 3-28-57. If there exists a reason why these companies should not be contacted the Bureau should be advised.

This matter should be afforded expeditious attention and your reply directed to the Electronics Section, FBI Laboratory.

OK
CKC:ART
5

REM

RECORDED - 86

EX 105

96-789-52
APR 22 1957

MAILED 6
APR 18 1957
COMM - FBI

6 W APR 25 1957

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI

DATE: April 12, 1957

FROM : SAC, CHICAGO [REDACTED]

b7D

SUBJECT: TRACING TELEPHONE CALLSJUNE

Re Bulet dated March 28, 1957.

On April 9, 1957, [REDACTED]

[REDACTED] Chicago, Illinois, furnished to SA [REDACTED] the replies to the questions set forth in relet. These questions originally were presented to [REDACTED] the established confidential source of this office, [REDACTED]

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In the interest of economy the questions set forth in relet will not be repeated hereinafter, however, the question number will be set forth followed by the appropriate answer.

- | | | |
|----|-----------------------|----------------------|
| 1. | Airlines Operation | - Crossbar |
| | Airlines Reservation | - Panel and Crossbar |
| | Bus Terminals | - Panel and Crossbar |
| | Railroad Stations | - Panel and Crossbar |
| | Railroad Reservations | - Panel and Crossbar |

(The above data applies for Chicago. Rockford, Rock Island, Springfield, Peoria, Decatur and Joliet are served by Step-by-Step Offices.)

2. (a) If a call is ticketed, both the calling and called party's number are shown on the ticket. (AB Toll and LD Calls)
- (b) In a manual office, the "A" operator has control of a call and she can leave the two cords in the jacks until the call is checked. Both ends of the circuit will be held until the "A" operator takes the cords down.

② - Bureau (Registered)
1 - Chicago

RECORDED - 83

APR 15 1957

LHN/hmt
(3)

INDEXED - 83

EX-132

SEVEN

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6 APR 22 1957

- (c) On customer dialed calls, the connection can be traced only while the call is held by the calling party. The originating and inter-office trunk equipments are released when the calling party hangs up. Thus, although the terminating equipment is held up until the called party hangs up, the call cannot be traced.

In tracing a customer-dialed call, a switchman starts at the called number on the final frame and checks the paths used back to an incoming trunk. He then calls the distant office and gives the trunk number to the force at that location. A switchman there then checks back and finds the originating line.

3. The Telephone Company does not use any special equipment to trace a call. The calls are traced manually by checking the paths through the equipment.
4. The Telephone Company's dial central office equipment in general is designed to provide joint supervision. The called party cannot hold up a circuit after the calling party disconnects.

In a step-by-step office, however, if a customer dials another customer in the same office, a plug can be placed in the test jack of the connector which will hold up the train after the parties disconnect. This will enable a switchman to trace a call in cities like Joliet and Decatur. This feature does not apply to calls originating in one step-by-step office and terminating in another step-office as the sleeve connection is not carried across.

5. The following paragraphs answer this question.
6. The City of Chicago is not zoned to the extent that any Chicago Telephone can call any other Chicago telephone for an identical charge. However, in the case of calls from Chicago telephones to suburban towns there is a variation of rates due to contiguous areas being given

lower rates because of a so-called "community of interest" condition. An example of this is the case of Oak Park where the following applies on calls:

- (a) Chicago telephones in Austin and Merrimac exchanges can call Oak Park telephones for 1 message unit because they are contiguous to Oak Park.
- (b) Chicago telephones in Kedzie, Kildare, Lafayette, Lawndale and Newcastle exchanges can call Oak Park telephones for 2 message units because these exchanges immediately adjoin those Chicago exchanges (Austin and Merrimac) which are contiguous to Oak Park.
- (c) The charge for calls to Oak Park telephones from all other Chicago telephones is 3 message units because of the greater distances involved.

There are numerous areas treated as above in the Illinois system.

Chicago Rate:

B Line \$8.50 including 70 messages
 First 1130, 4 3/4¢; Balance 4 1/4¢

For all exchanges:

The initial periods, overtime periods and the number of message units applying to each overtime period are:

<u>Where the Initial Period Unit Charge Is</u>	<u>The Initial Period Is</u>	<u>The Overtime Charges Are</u>
1 Unit	5 Minutes	1 Unit for 5 Mins. or Fraction Thereof
2 Units	5 Minutes	1 Unit for 3 Mins. or Fraction Thereof
3 & 4 Units	5 Minutes	1 Unit for 2 Mins. or Fraction Thereof
5 Units	5 Minutes	1 Unit for 1 Min. or Fraction Thereof
6, 7 & 8 Units	3 Minutes	2 Units for 1 Min. or Fraction Thereof
9 Units	3 Minutes	3 Units for 1 Min. or Fraction Thereof

7. All calls within Chicago are furnished on a per message or message unit basis and a minimum number of calls are included in the monthly rate. But telephone rates for suburban towns includes service to all other telephones within the exchange boundaries. In some instances these rates include service to some adjoining or nearby town or towns because of the "community of interest" condition. An example of this is the Plainfield-Joliet situation. The Business Line flat rate is \$11.65 per month, including calls between Joliet, Plainfield and Lockport. There are also other cases of this kind.
8. It is not clear what is meant by this question but possibly the answers to questions 9, 10, 11 and 12 will provide the answer.
9. The automatic message accounting tapes do not usually show rate information where the originating telephone has metropolitan service. An exception to this is where message unit billing is involved in which case the basic rate for the call is shown but the called telephone number is not shown. Where the calling telephone does not have metropolitan service then the calls are billed individually - for example Berwyn - \$.20.
10. The automatic message accounting machine tapes are retained for two months. However, before destruction some additional information is furnished to the Business Office. This information is complete enough to enable the Business Office to settle any message unit dispute that may arise. The Business Office retains this information for six months.
11. It is not clear just what is meant by the words "accelerated method" but it is possible to determine from the tapes, for the preceding two months, what telephone numbers were called and the calling numbers under the following conditions:
 - (a) If calling telephone is metropolitan service then on Long Distance calls only.

b7D

(b) If calling telephone does not have metropolitan service then on Long Distance calls and on message unit calls where the basic rate is over \$.20. It appears that several hours time would be required to secure the information from the tapes.

12. At the present time (and until sometime in 1959) all initial processing of AMA tapes for entire Company is done at the AMA Center, 6th floor, 85 West Congress Street. I.B.M. punched cards are prepared on a "tape to card" machine and the punched cards are then forwarded to the appropriate accounting office for billing.
13. 12 above also answers this one. All AMA accounting is done at 85 West Congress Street.

NOTE: There are just four items that appear on the AMA tape for each completed Long Distance call. These are:

1. The telephone number of the calling telephone.
2. The telephone number of the called telephone.
3. The time of the start of conversation.
4. The time of the end of conversation.

See 9 above for exception to this on unit billing.

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI
Attn: ELECTRONICS SECTION, FBI LABORATORY

DATE: April 12, 1957

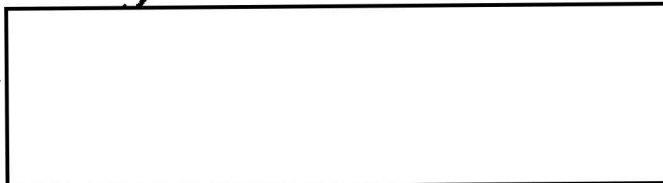
FROM : SAC, BOSTON (66-50)

JUNE

SUBJECT: TRACING TELEPHONE CALLS

Rebulet dated March 28, 1957.

The following individuals were discreetly contacted concerning the subject matter through established sources at the New England Telephone and Telegraph Company (NET & T Co.), Boston, Massachusetts:



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The following information was obtained concerning the specific questions set out in referenced letter:

1. The Logan International Airport, Boston, Massachusetts is serviced by the East Boston exchange which is presently equipped with a manual system which will be changed to a #5 crossbar (XB5) in September, 1957 which will include automatic accounting termed Local Automatic Machine Accounting (LAMA).

The downtown exchanges serving bus terminals, railroad stations and reservation offices known as the Central Exchange which is handled out of three separate buildings, is on panel equipment (PT) with the exception of the Richmond Office which is #1 crossbar (XB).

2. The NET & T Co. has no established method to trace a telephone call from destination to point of origin. The line is under the control of the calling party and when he hangs up, all equipment returns to normal.

If the urgency of the situation requires and under ideal conditions where a switchman has been alerted at the exchange and where the call originated and terminated within the same exchange building, it would take between four and five minutes to trace a call. He would physically have to trace the designation strips of (1) the final selector frame; (2) the incoming selector frame; (3) the office selector frame; (4) the district selector frame; (5) the line finder frame. If an additional

JMC:JEH

Enclosures (7) *Returned in Electronics Section*

(3)

REGISTERED MAIL

RECORDED - 83

INDEXED - 83

16 APR 18 1957

6 APR 22 1957

1cc Retained in Electronics Section

EX-181

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b7C

exchange were involved, it would be necessary to contact the other office after checking numbers 1 and 2 above and have that office from which the call originated, check out numbers 3, 4, and 5. This operation under ideal conditions would take approximately five to eight minutes, realizing that additional time might be needed to alert the employee at the originating office. If in addition to the above the call goes through a tandem office, an additional two to three minutes might be consumed. The above approximate times are based on an attended frame where the employee is immediately available to check out the line and pass the information on to the next office.

3. The NET & T Co. has no mechanical, electrical, or electronic aids to rapidly trace a call to the point of origin.
4. In offices using Step-by-Step (SS) equipment and where the call originates and terminates in the same building, the called party can seize control of the line.

[] referred to above, originally developed this unit known as the Step-by-Step Annoyance Call Circuit GES-5470-2. Attached is an explanation, description and a circuit diagram of same.

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b7D

Within the Boston territory, New Bedford, Springfield and Worcester are some of the larger cities which are still equipped with Step-by-Step system.

[] further stated that not only is the dial system a problem in tracing, but the use of the tandem office system further complicates tracing. The tandem system is an economical method that the telephone company uses whereby calls between two offices within a metropolitan area are not directly routed but are handled through what is known as a tandem office which acts as a clearing-house and provides for greater use of equipment.

[] stated that a unit similar in design to the GES-5470-2 circuit mentioned above, may be adapted to #5 crossbar offices where the call originates and terminates in that same office since this circuit seizes the line because of the use of a common battery.

It is to be noted that the East Boston Exchange where Logan International Airport is located is being changed to #5 crossbar in September, 1957. []

[] stated he will discreetly look into this design problem and will advise this office concerning the engineering possibilities, feasibility and cost to the telephone company regarding this circuit.

5. Three types of service are made use of in the metropolitan area of Boston for local charges. The same charge is made on manual and all dial telephones. (See attachment which maps the metropolitan area).

1. Measured Service

This type charges on each call made and depending on the distance up to sixteen miles within the metropolitan area, 1, 2, or 3 message units are registered. No information concerning the terminating number is recorded.

2. Unlimited Contiguous Service

This type permits all connecting offices to be called without additional charge. However, if the called number is not a connecting office, charges are registered as in the manual service up to sixteen miles within the metropolitan area.

3. Full Suburban Service

This type permits the calling of any number within the metropolitan area of Boston except the downtown office known as the Central Exchange. The metropolitan area is roughly within a sixteen mile radius from downtown Boston. When a Central Exchange number is called, a message unit is registered; however, no record is made of the called number.

Any call made under Measured Service or Contiguous Service which is over sixteen miles is considered a toll call even though it is within the metropolitan area and information concerning the called number is ticketed by an operator or machine depending on the area.

Any call made from outside the metropolitan area to inside, is ticketed as a toll call (except Lynn and Burlington, Massachusetts).

6. Dial areas are zoned as set out in number 5 above.
7. As set out in number 5 above, a subscriber calling from outside the metropolitan area to inside, is ticketed for a toll charge (numerous exceptions are employed in offices bordering other offices at the metropolitan area line depending on the type of service being requested). Also any call made from within the metropolitan area to the outside is ticketed as a toll call. Any call made from outside the metropolitan area to the Central Exchange is ticketed as a toll call.
8. At the present there are eight offices within the metropolitan area which are #5 crossbar and are equipped with LAMA. There are nine offices outside and adjacent to the metropolitan area equipped with the same system.

All other offices within the metropolitan area will be converted from operator to Central Automatic Machine Accounting (CAMA) by June of 1957. CAMA will be located at 245 State Street, Boston, Massachusetts.

9. On LAMA and CAMA where unit calls are made, only the originating number and the message units are recorded. No information concerning the terminating number is recorded. On long distance calls, information concerning the terminating number, the time, the date and the number of minutes of the call are recorded.

It is possible to place an individual's line on "service observing entry control circuit." In this situation the accounting machine will record the originating number, the terminating number, the time of connection, the time of disconnection and information concerning any time the caller attempted to make this call. This information is available for message unit calls as well as toll calls. (See attached statement which is made up from a tape on service observing. It is noted that the two calls set out are long distance. However, the same information would be printed for message unit calls where the service observing system was in effect.)

Person to person, collect, local hotel calls, and quote rate calls will continue to be handled and ticketed by an operator.

10. The original accounting machine tape is kept for one month, the IBM card for two months (see attached), and the subscriber's statement six months. See attached statement showing long distance calls charged to FA 3 2407.
11. Routinely, the information from a tape is available at the accounting machine center by noon of the second work day. Tapes are changed at 3:00 AM and forwarded on the same date (except Saturdays and Sundays) to the center.

There is actually no accelerated method by machine. Manpower and capacity of equipment are the only variables. If the tape is placed on priority and is processed immediately, the information can be available within two to three hours depending upon the size of the tape.

The information from a service observing tape can be made available within one hour after the tape arrives at the accounting center. In an emergency situation, a tape which is being printed at a local office could be removed from the machine and that portion delivered to an accounting center where the tape could be processed immediately. This would require a local office to place an emergency machine in operation to print on an emergency tape while the original tape was being removed. However, it is noted that depending upon the number of calls handled by any CAMA or LAMA area, anywhere from two to nine machines may be printing depending upon the peak load. It may be necessary in some instances to shift more than one machine to emergency to obtain the tape that handled any particular call.

12. All LAMA and CAMA are presently processed at NET & T Co., 245 State Street, Boston with the following exceptions:

Providence, Rhode Island and southeastern Massachusetts are processed at Providence;

After June of 1957, Salem, Massachusetts will process northeast Massachusetts and will include Maine and New Hampshire.

13. The accounting center in Boston will cover all the area handled by the New England Telephone and Telegraph Company with the exceptions as noted in number 12 above. NET & T Co. covers the New England states except Connecticut.

It is requested that the attached diagram of circuit GES-5470-2 be photographed at the Laboratory and returned to the Boston Office.

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI
 FROM : SAC, HONOLULU (66-613)
 SUBJECT: TRACING TELEPHONE CALLS

DATE: 4/11/57

J U N E

ATTENTION: ELECTRONICS SECTION, FBI LABORATORY

Rebulet 3/28/57.

The following answers to questions set forth in referenced Bureau letter were obtained from [redacted]

[redacted] Hawaiian Telephone Company,
 (Questions 1 to 4). and from [redacted] Traffic
 Department, Hawaiian Telephone Company, (Questions 5 to 13).

b6
b7cQuestion 1.

Strowger Step-By-Step.

Question 2.

None applicable to calls of short duration.

Question 3.

No, except that described under Question 4.

Question 4.

The Telephone Company has, but has never used, Annoyance Call Holding Repeater Circuit #61175, manufactured by the Automatic Electric Company, which seizes control (only on local area calls) by grounding the control lead. This equipment is activated when the receiver is off the hook and the number "1" is dialed by the called party.

Questions 5 and 8.

Intrastate and interstate toll calls are all billed on the basis of toll-call slips prepared by

RECORDED - 21

INDEXED - 21

APR 13 1957

2 - Bureau (REGISTERED) / cc retained in Electronics Section
 1 - Honolulu

RET:eim

(3)
 6 APR 22 1957

SEVEN

the telephone operator handling the call. On intra-island calls this slip reflects:

1. Date;
2. City where call originates;
3. Number of telephone from which call is placed;
4. City being called;
5. Telephone number being called; and,
6. Initials of operator handling call.

Slips on interisland calls bear all of the above information and in addition bear the name of the person calling and in the case of person-to-person calls, the name of the person being called. There is no additional charge for person-to-person intra-island calls, so the name of the person being called is not entered by the operator, unless volunteered by the caller.

From the operators, these toll-call slips are routed, for computation of charges, to the Telephone Company Traffic Department on the particular island where the call originated. These toll-call slips are next routed to the Telephone Company Billing Department at Honolulu for billing purposes, after which they are returned to the Telephone Company Business Office on the particular island where the call originated. These slips are destroyed when six months old.

Question 6.

No.

Question 7.

Half the Island of Oahu can be contacted without toll charges. A call to Honolulu from the other portions of Oahu or from any of the other Islands would be a toll call.

HN 66-613

Questions 9, 10, 11 and 12.

Accounting machines not used.

Question 13.

The accounting operations for all of the Islands are centralized in Honolulu.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI

DATE: 4/11/57

FROM : SAC, Philadelphia (66-1042)

SUBJECT: TRACING TELEPHONE CALLSJ U N EATTENTION: ELECTRONICS SECTION
FBI LABORATORY

Rebulet to Boston dated 3/28/57.

see det.

[redacted] a confidential source of this office, has been on an extended vacation in Florida. He was contacted on 4/10/57, and advised he would obtain information requested in relet as soon as possible.

Upon receipt of information from [redacted] this will be forwarded immediately to the Bureau.

- 2 - Bureau (RM)
- 1 - Philadelphia (66-1042)

EAS:jag
(3)

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SEVEN

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI

DATE: April 10, 1957

FROM: SAC, CLEVELAND (66-2973)

JUNE

SUBJECT: TRACING TELEPHONE CALLS

ATTENTION: ELECTRONICS SECTION, FBI LABORATORY

Re Bureau letter dated March 28, 1957.

On April 8, 1957, [redacted] who is the confidential office contact at the [redacted] provided the following answers to the questions set forth in referenced Bureau letter.

b7D

1. The type of central office switching equipment used in areas serving airlines, bus terminals and railroad stations and reservation offices.

ANSWER: Panel switching equipment (downtown area) or Number One crossbar switching equipment (outlying districts).

2. What method does the telephone company use to trace a telephone call from the destination to the point of origin?

ANSWER: In panel switching equipment office - start at final frame and block line relay with a blocking tool; go to incoming frame and do same with relay; go to office frame and block relay, and go to distributing frame and block relay; then go to line-finder and block.

In Number One crossbar switching equipment office - go to final terminating frame and block; then block junctor and then block distributing junctor, and then block line-finder.

3 - Bureau (RM) 1 cc Retained in Electronics Section on 4/15/57
1 - Cleveland

CAE:mat
(4)

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6 APR 22 1957

EXP. PROC.

CV 66-2973

3. Does the telephone company have mechanical, electrical or electronic aids to rapidly trace a call to the point of origin? If so, describe in detail furnishing equipment or part numbers.

ANSWER: No, all such operations are manual.

4. Do they have any system, circuit or method whereby the called party's telephone can seize control of the line once a conversation path has been established? In this connection some Step-by-Step systems have facilities whereby the called party's line can seize the line by grounding the sleeve at the connector.

ANSWER: No system or circuits exist for this purpose.

5. What accounting method is used to charge subscribers with local toll charges?

ANSWER: Customer automatic machine accounting (CAMA). This system is a tape to IBM card method.

6. Do they have dial areas zoned?

ANSWER: Yes, local versus message unit.

7. What area, or how far may a subscriber make a call without being charged with a local or long-distance toll?

ANSWER: About 22 miles.

8. What accounting method is used to charge subscribers with long-distance toll charges?

ANSWER: Two methods - CAMA tape to IBM card or toll tickets to electric typewriter.

9. If automatic accounting systems are employed, what data are recorded by the machine on unit calls and local toll calls?

CV 66-2973

ANSWER: Originating telephone number, date, central office code, and number of units, time connected and then disconnected. In no case is the called number recorded.

10. How long is the original accounting machine data retained before being destroyed?

ANSWER: Three months.

11. Do they have an accelerated method for reviewing accounting machine data whereby all calls to a subscriber's number can be selected with a view of determining the called party if the date and time of call are known?

ANSWER: No, but a device exists for this purpose, which is called a printer scanner, although Ohio Bell Telephone Company does not have it.

12. Where are machine accounting records processed?

ANSWER: 1020 Bolivar Road, Cleveland, Ohio.

13. What area does the accounting center cover?

ANSWER: The entire State of Ohio.

Source advised that he had gathered the above answers from logical sources in the Telephone Company, inasmuch as he himself was not familiar with all of the above aspects.

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI
 FROM : SAC, DALLAS (66-1313) JUNE DATE: April 3, 1957
 SUBJECT: TRACING TELEPHONE CALLS

Reference is made to Bureau letter to Boston, 3/28/57 relative to the above captioned matter.

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[REDACTED] Southwestern Bell Telephone Company, on April 2, 1957, furnished the following data:

1. The type of central office switching equipment used in areas serving airlines, bus terminals and railroad stations and reservation offices.

Answer: No particular type of central office switching equipment is used for serving airlines, bus terminals, railroads and reservation offices other than Step-by-Step dial system.

2. What method does the telephone company use to trace a telephone call from the destination to the point of origin?

Answer: Make connector busy in terminating central office and trace back, switch by switch to originating line. This is most difficult when the call originates at another wire center as it then becomes necessary for the distant wire center to be called by telephone for the attendant to meet the terminating office switchman on the trunk and complete tracing the call back to the originating line. Some offices are unattended especially at night.

3. Does the telephone company have mechanical, electrical or electronic aids to rapidly trace a call to the point of origin? If so, described in detail furnishing equipment or part numbers.

Answer: No.

② - Bureau (REGISTERED MAIL)
 1 - Dallas

VED:jeg

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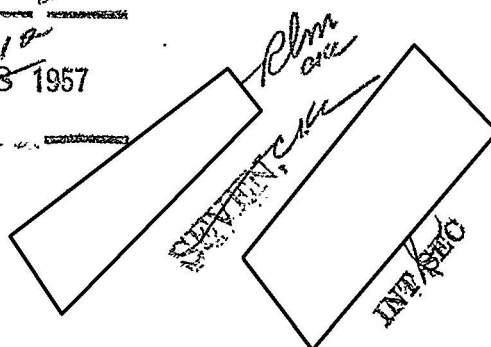
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*no reply necessary
 1 cc Retained in Electronics Section. CMC*

EX-107

3 APR 22 1957



DL 66-1313

4. Do they have any system, circuit or method whereby the called party's telephone can seize control of the line once a conversation path has been established? In this connection some Step-by-Step systems have facilities whereby the called party's line can seize the line by grounding the sleeve at the connector.

Answer: No. However, it is possible in individual special cases to place an alarm bell on specified connector terminals (the called party's number) so that on every call coming to the connector terminal an alarm bell rings and the switchman attendant could run to the equipment and manually tie up the entire series of connections until it could be determined that the individual line did not require tracing. Obviously, this would be impractical in large groups or group of numbers or where very large number of telephone numbers would be involved. An alternate possibility would be the installation of a special private line from the subscriber's PBX board or answering location to the switchman attendant so the switchman could be alerted immediately when a call came in that should be traced; tracing would then be carried out in accordance with the answer to the above second question.

5. What accounting method is used to charge subscribers with local toll charges?

Answer: Interzone message charges on calls from non-contiguous zones are handled on manual tickets prepared by the Dial Service Assistant Operators.

6. Do they have dial areas zoned?

Answer: Areas which can dial each other are not zoned as to charges but are zoned geographically.

7. What area, or how far may a subscriber make a call without being charged with a local or long-distance toll?

Answer: Zones adjoining or contiguous within the Dallas Metropolitan area can dial each other without charge or ticketing of calls.

DL 66-1313

8. What accounting method is used to charge subscribers with long-distance toll charges?

Answer: Long distance charges are set up on manual tickets prepared at a point of origin except those from a few selected cities equipped for machine ticketing, the closest of these cities to the City of Dallas being those of Denison, Texas, and Enid, Oklahoma.

9. If automatic accounting systems are employed, what data are recorded by the machine on "unit" calls and local toll calls?

Answer: Not applicable.

10. How long is the original accounting machine data retained before being destroyed?

Answer: Manual tickets are held for a period of six months on long distance calls.

11. Do they have an accelerated method for reviewing accounting machine data whereby all calls to a subscriber's number can be selected with a view of determining the called party if the date and time of call are known?

Answer: No.

12. Where are machine accounting records processed?

Answer: St. Louis, Missouri.

13. What area does the accounting center cover?

Answer: From Dallas, Texas, which includes Northeast Texas to Denison, Texas, and from Dallas, Texas, to Carthage, Texas.

The following are central offices having 24 hour coverage:

Riverside	Taylor
Fleetwood	Davis
Lakeside	Whitehall
Emerson	Hamilton

DL 66-1313

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is most cooperative with this office and has expressed a desire to be of assistance in any manner possible that the Bureau might desire.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI

JUNE

DATE: April 3, 1957

FROM : SAC, Miami (94-321)

ATTN: FBI LABORATORY
ELECTRONICS SECTIONSUBJECT: TRACING TELEPHONE CALLS
MIAMI DIVISION

Rebulet 3/28/57 requesting certain information regarding the type of equipment utilized by the Southern Bell Telephone Company at Miami in its telephone service and method of tracing calls. Answers to those questions are set forth below in the same order as the questions were set forth in Bulet.

1. At the present time, Step by Step Dial Switching Equipment is used exclusively in all exchanges of the Southern Bell Telephone & Telegraph Company in the greater metropolitan area of Miami and for that matter throughout the Southern Bell system in the State of Florida. As of April 7, 1957, there is to be a cut over to Number 5, Cross Bar Dial Equipment, on the Homestead and Perrine exchanges. A similar cut over is contemplated out of the North Dade exchange on September 28, 1957. However, source advised that mechanical billing equipment ordinarily used with the Number 5, Cross Bar Dial Equipment, will not be used with this particular equipment because of its lack of practicability in the Miami area.

2. The only method used is that of manually tracing the call through each connection back to its source, a tedious and often fruitless method. Source noted that in no instance is it possible to trace a call from destination to origin where the call must travel over a trunking cable from one exchange to another, after the connection has been broken. Source pointed out that it is a much simpler matter to trace a call where both calling party and called party are within the same exchange. However, this type of call, too, is impossible to trace once the connection has been broken.

In the above connection, it will be noted that there are 13 separate exchanges in the Southern Bell Telephone and Telegraph Company set-up within the greater Miami metropolitan area. They are:

No reply necessary
1cc Retained in Electronics Section OK

2 - Bureau
1 - Miami
RES: JHK
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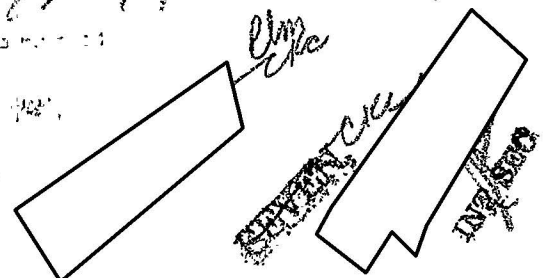
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Miami Beach (UNion, JEfferson).....	2
Miami (North Dade, NATional, MURray, PLaza, TUXedo).....	5
Miami (NEWton, FRanklin, Key Biscayne).....	3
Miami (HIGHLand, MOhawk, Perrine).....	3
	<u>13</u>

3. Both sections of question are answered - No.

4. In the Step by Step Dial Switching Equipment in use, no provision is made whereby the called party may seize control of the line, nor can this be done at the SBT&T Co. exchange. Source advised that when the Number 5, Cross Bar Equipment is placed into operation, either party breaks the connection when hanging up. The connection will automatically be broken after an interval of 15 to 20 seconds delay.

5. There are no charges to subscribers for local tolls. As will be explained under 8 below, all toll charges, "local" or long distance, are handled in the same manner.

By way of explanation of above, source pointed out that the matter of determining whether or not there is to be a toll charge is determined by the source exchange and the destination exchange. Basically speaking, a caller from one exchange may make a free call to another exchange on either side of his own exchange. Source pointed out that reading from south to north, the exchanges are, for this purpose, Homestead, Perrine, Miami, North Dade, Hollywood, Fort Lauderdale, etc. on north. Using the same formula, a caller from one of the Miami exchanges may call either North Dade or Perrine free of charge. A North Dade caller may call either Hollywood or Miami, etc. The one exception to the rule is that a North Dade caller may call Perrine in addition to Miami free of charge. A call skipping an exchange constitutes a long distance toll charge. Source noted that this rule exists up into the State.

6. There are no dial areas zoned.

MM 94-321

7. See 5 above.

8. Subscribers are charged with long distance tolls as follows:

a. The long distance operator prepares a ticket showing at least the number of the calling party, the number of the called party and the length of the call.

b. Where the calling party is to be charged with the call, the ticket is turned in by the long distance operator at midnight of the day the call is placed. From there it is sent, daily, to the accounting office where it is processed and ultimately charged against the subscriber's number on the next bill.

c. Where the called party is to be charged (collect call), the long distance operator follows the same procedure. However, at the accounting office the tickets are separated by cities to which the calls have been placed, ultimately being sent to the accounting offices covering those cities for charge to the called party's bill on the next bill.

Source advised that there are two accounting offices for the State of Florida. One is located in Coral Gables and handles all calls made from the North Dade Exchange south to Key West. The other is located in Jacksonville and handles all calls made from the remaining portion of the State covered by the SBT&T Co. Normally these toll tickets are retained for a period of six months and then destroyed.

9 thru 12. No automatic accounting systems are used by the SBT&T Co. in the Florida area.

13. As pointed out above, the two accounting offices are located at Coral Gables and Jacksonville, Florida.

Source of above information is [redacted]

[redacted] a confidential source of many years standing who has shown himself to be a person of utmost discretion throughout the years. No other [redacted] was contacted. Information was obtained by SA [redacted] on March 29, 1957.

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SAC, Boston

March 28, 1957

Director, FBI

JUNE

TRACING TELEPHONE CALLS

The Bureau is attempting to develop methods of tracing telephone calls of short duration. Accordingly, it is desired that all offices receiving copies of this letter contact operating telephone companies within the metropolitan area of your office to ascertain the following:

1. The type of central office switching equipment used in areas serving airlines, bus terminals and railroad stations and reservation offices.
2. What method does the telephone company use to trace a telephone call from the destination to the point of origin?
3. Does the telephone company have mechanical, electrical or electronic aids to rapidly trace a call to the point of origin? If so, describe in detail furnishing equipment or part numbers.
4. Do they have any system, circuit or method whereby the called party's telephone can seize control of the line once a conversation path has been established? In this connection some Step-by-Step systems have facilities whereby the called party's line can seize the line by grounding the sleeve at the connector.
5. What accounting method is used to charge subscribers with local toll charges?
6. Do they have dial areas zoned?
What area, or how far may a subscriber make a call without being charged with a local or long-distance toll?
8. What accounting method is used to charge subscribers with long-distance toll charges?

Tolson
Boardman
Nichols
Belmont
Harbo
Mohr
Parsons
Rosen
Tamm
 Sizoo
Winterrowd
Tele. Room
Holloman
Gandy

LABORATORY DIVISION

2 - Los Angeles
2 - Miami
2 - New York
2 - Philadelphia
2 - San Francisco

NOTE: See cover memo [redacted] to Mr. Parsons, 3-26357

CKG:KMB

CKG:KMB

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APR 25 1957

SAC, Boston
Re: Tracing Telephone Calls

9. If automatic accounting systems are employed, what data are recorded by the machine on "unit" calls and local toll calls?
10. How long is the original accounting machine data retained before being destroyed?
11. Do they have an accelerated method for reviewing accounting machine data whereby all calls to a subscriber's number can be selected with a view of determining the called party if the date and time of call are known?
12. Where are machine accounting records processed?
13. What area does the accounting center cover?

You must be most circumspect and discreet in handling this matter with the operating company. It is believed that this data can best be furnished by an official on the engineering staff. Accordingly, it is suggested you arrange for this contact through your established informants.

Your reply must be directed to the attention of the Electronics Section, FBI Laboratory, no later than April 15, 1957.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Parsons

DATE: March 26, 1957

b6
b7CFROM : JUNE

SUBJECT: TRACING OF TELEPHONE CALLS

SYNOPSIS:

The tracing of telephone calls can be accomplished under certain circumstances in long-distance, toll or manual systems involving one line where the connection is held by a long period of conversation and it is possible to physically examine and identify all central office connections along the conversation path. The problem of tracing calls is becoming more complex with each new development by the telephone industry because the basic design of the equipment is counter to any design which would aid tracing. To trace a call to the point of origin, with present equipment, it is necessary to have an experienced craftsman examine each wire terminal and electromechanical connection involved in the conversation path. The number of exchanges involved will vary with distances and interconnecting facilities of the telephone companies and will materially affect the length of time required to trace the call,

Step-by-Step (SxS) dial system is the most simple type of dial equipment over which a telephone call can be traced. This system has functional limitations which discourage its use in large cities. By physically grounding the control circuit at the called end of this type system it has, in the past, been possible to lock up or preserve the conversation path long enough to trace a call within one central office even though the calling party has hung up. It is within the realm of possibility that the grounding of the control circuit can be effected remotely by the called party with the addition of special circuits. This approach represents a deviation of telephone company policy and practice and would require expensive and extensive design and testing before it would be approved for installation. It is also within the realm of possibility that special circuits may be added to selected subscribers which would enable them to seize control of the incoming calls.

Delayed tracing of calls can be effected on certain types of traffic through use of toll tickets and Automatic Machine Accounting (AMA) records. These data are effective only in those areas where the call originates in an exchange out of normal dialing range. The frequency of this condition is increasing with the expansion of suburban communities and installation of Nationwide Subscriber Toll Dialing.

Enclosure

CKC:KMB

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STANDARD

Tolson _____
 Nichols _____
 Boardman _____
 Belmont _____
 Mohr _____
 Parsons _____
 Rosen _____
 Tamm _____
 Trotter _____
 Nease _____
 Winterrowd _____
 Tele. Room _____
 Holloman _____
 Gandy _____

Memo to Mr. Parsons
Re: Tracing of Telephone Calls

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The areas where remote grounding of control circuits, or the delayed tracing method may be productively employed, cannot be determined without first having the field make confidential inquiry at the operating companies to determine the type of switching equipment used in central offices serving interested subscribers and the accounting methods utilized for local charge calls. Accordingly, there is attached, for approval, a letter to selected field offices requesting the desired data.

One of the Bureau's highly placed contacts in the local telephone company stated quite frankly that he did not believe his company would be interested in making tracing facilities available to any organization except the Bureau. His experience has been that other agencies are not as selective in screening their requests as the Bureau and consequently they make unreasonable demands for special services. He pointed out also that he did not feel the Bell System would want to make a practice of searching AMA tapes.

In light of the above, this matter must be handled most discreetly both in the dissemination of information and in relations with operating companies.

RECOMMENDATIONS:

1. That the attached letter be sent to the selected field offices.

✓ OK 3/27 *Par* *7/28*

2. If the results of the afore-listed survey are favorable, it is recommended that a Laboratory Engineer familiar with this problem contact the Bell Telephone Laboratories, Automatic Electric Company, and Federal Telephone and Telegraph Company, the leading manufacturers of telephone equipment, to ascertain the feasibility of remotely grounding the control circuit of telephones to facilitate tracing of calls.

*Defer consideration
pending replies
to out going letter
3/27 *Par**

✓

OK. H.

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Memo [] to Mr. Parsons
Re: Tracing of Telephone Calls

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TABLE OF CONTENTS

	Page
AMA (Automatic Machine Accounting)	6
CAMA (Centralized Automatic Machine Accounting)	6
Contemporaneous Tracing of Telephone Calls	3
Conclusions	7
Delayed Tracing of Telephone Calls	5
LAMA (Local or Line Machine Accounting)	6
Message Register Charge System	5

Memo [] to Mr. Parsons
Re: Tracing of Telephone Calls

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DETAILS:

Contemporaneous Tracing of Telephone Calls

The problem of tracing telephone calls is becoming more complex with each new development by the telephone industry. In the early stages of this communication medium, the establishment of connections between calling and called parties was effected manually by operators. To trace a call it was necessary to communicate with each operator participating in the handling of the call in order that the point of origin could be established.

With the development of dial (electromechanical) switching equipment, control circuits were provided to perform the connecting and disconnecting functions previously handled by operators. Since the inception of dial telephones the control circuits have been slaves of the calling party. This practice has been followed religiously by design engineers in developing new and more economical telephone switching equipment.

Economy being the watchword in the telephone industry, new developments and improvements have been constructed with a view of saving money as well as making customer service more attractive. The economy developments have produced multiple function components which means that some of the switching equipment, which formally "locked up" to the exclusion of all other subscribers for the entire conversation, can now handle additional traffic once the called party has answered the telephone. These improvements have complicated the tracing of calls.

To trace a telephone call to the point of origin, with the present equipment, it is necessary for an experienced craftsman to physically examine each wire terminal and electromechanical connection in each central office involved in the conversation path. The number of exchanges involved in this path will vary from one, such as an EXecutive exchange subscriber calling another EXecutive exchange subscriber, to several exchanges, depending on distances involved and interconnecting facilities of the telephone company.

Memo to Mr. Parsons
Re: Tracing of Telephone Calls

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The tracing of telephone calls during normal telephone company working hours can be accomplished under most conditions, provided the calling person stays on the line long enough to permit the required physical examination and verification and liaison has been established with telephone company personnel. The length of time required for this operation varies with the alertness of the called party in notifying appropriate personnel, the familiarity of telephone company personnel with the problem and the number of exchanges involved in effecting the connection. To trace a call after the normal telephone company working hours requires the retention of skilled craftsmen on a stand-by basis at premium pay during the pertinent hours. It follows, therefore, that with existing telephone company switching systems it is impossible to trace calls of short duration.

One of the easiest electromechanical switching systems for the tracing of a telephone call is the Step-by-Step (SxS) system utilized by a number of telephone operating companies. This system has functional limitations which discourage its use in most large cities. Electronics Section personnel, in cooperation with telephone company employees were able to lock up incoming calls by physically grounding the control circuit of the connector after final connection was established with the called party and trace the call back to the point of origin within an exchange. The frequency and length of calls permitted the identification of the calling exchange and by having a telephone company employee on stand-by in the calling exchange, who, upon advice from the called exchange, was able to trace the call to the point of origin. (RUNAP-calls to radio station). It should be pointed out that in all instances where the circuit is locked up for tracing the called and calling subscribers lose the use of their telephones.

It is within the realm of possibility that the grounding of the control circuit in SxS systems can be remotely controlled by the called party. This represents a deviation of telephone company policy and practice and will require extensive engineering design and testing before installing in a central office. In addition, there must be effective liaison between the called subscriber and the telephone operating company. This method would identify the calling telephone only when the calling party is in the same exchange as the called party. It would, in all probability, identify the foreign exchange from which the call was made.

Memo [] to Mr. Parsons
Re: Tracing of Telephone Calls

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Telephone switching systems, notably Panel, developed since SxS system can be locked up but in so doing every telephone in the entire exchange would be "frozen" or locked up during the back-trace period. This is an undesirable condition and certainly one which the Bureau and the operating telephone companies would not want to be a party to because of the number of emergency services such as fire, police, ambulance, etc., depending upon telephone communication. In light of this no further consideration will be given this method of tracing calls.

Engineers in the Electronics Section who have been working on this matter point out that by the addition of special circuits, such as operator control circuits, selected lines may be rewired so they can seize control of the incoming call.

Delayed Tracing of Telephone Calls

With the expansion of the suburban population and the development of Subscriber Nationwide Dialing, telephone companies have developed a message register charge system and Automatic Machine Accounting (AMA) equipment for recording extended range calls dialed by subscribers.

The Message Register charge system is designed to charge the subscriber with call "units" on all calls made within area, i.e., one unit for local calls, two units per call for the next zone, etc. This system makes no permanent record of exchanges called nor numbers dialed. It, therefore, offers no possibility for the delayed tracing of calls.

Calls made beyond the message register accounting range require operator assistance identical with long-distance calls. In this case the operator prepares a toll ticket reflecting the calling number, the number called, time, date and length of conversation. The use of toll tickets for investigative leads is not new; however, the use is restricted almost entirely to outgoing calls. In instances where the identity of the calling party on a toll call is desired, a check could be made at the accounting rating center identifying the called party, time, date and duration of the call. The request for such a search must be made within a few days of the call and, if the call was a toll call, the ticket will identify the calling telephone.

Memo [] to Mr. Parsons
Re: Tracing of Telephone Calls

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Automatic Machine Accounting (AMA) represents the latest development in the preparation of charges for calls. There are two different systems in existence in the Bell System as of this writing. These systems are designated as LAMA (Line or Local Automatic Machine Accounting) and CAMA (Centralized Automatic Machine Accounting). They differ only in the method of recording the intelligence.

LAMA has been installed in the new dial exchange offices. In these establishments the subscriber dials all numbers, including long-distance calls. The accounting machine will record, on perforated tape, the calling number, called number, time, date and length of call for all calls made outside of the dialing area (local toll and long-distance toll calls).

CAMA has been installed in offices where existing dial equipment cannot be economically converted to LAMA. In exchanges having this facility the subscriber dials the called number and a charge operator requests the calling subscriber to identify the line. Upon receipt of the identification the charge operator records the calling number on the tape through an electrical circuit. The operator has no knowledge of the number called by the subscriber. With this information recorded on the tape, the accounting machine tape reflects all of the data set out on the LAMA system tape.

The machine accounting tapes are retained for 30 days in the Chesapeake and Potomac (C & P) Telephone Company of Washington. If during this retention period, pertinent data is desired, the tape can be run through a "Comparative Rack" which, while designed to check the accuracy of an accounting machine, can be used to extract information in accordance with a preset selector. That is to say, if it is desired to ferret out all calls to EXecutive 3-7100, the machine could be preset to stop the tape each time EXecutive 3-7100 appears as the called party. The identity of the calling party being part of this entry could be ascertained through the operation of certain test controls. This process is repeated each time the number EXecutive 3-7100 appears as the called party.

Memo [] to Mr. Parsons
Re: Tracing of Telephone Calls

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CONCLUSIONS:

Telephone calls can be traced if the calling party remains connected to the called party long enough and the proper liaison has been established with the telephone operating company. In some instances it may be possible to have the subscriber lock up the conversation path by remote control equipment, which equipment will have to be designed and tested before its potential can be determined. This approach represents a costly operation both for manpower and equipment as far as the telephone company is concerned. Too, it will require taking outsiders into our confidence as well as involve a training program for those persons most likely to receive pertinent calls.

The use of the accounting machine tape will be effective only in areas where all pertinent data is recorded on the tape. Productive results cannot be expected from a message register system as the pertinent data is not recorded.

If the called number and time are the only data known, it is estimated that 24 hours will be required to review all of the accounting tape in the Washington area. This will, in some measure, give an idea as to the manpower problem in searching the accounting tickets.

The areas where one or both of the above methods may produce results cannot be determined without first having the field make confidential inquiry at the operating company to determine the type of switching equipment used in central offices serving interested subscribers and the accounting methods utilized for local charge calls. From Electronics Section contacts with telephone companies and review of technical and trade papers, it would appear that one or both of the above methods may be successfully applied to the El Paso, Honolulu, Los Angeles, New Haven and San Francisco areas. However, it will be necessary to have the field contact the operating companies before this matter can be pursued further.

It should be pointed out that our contact in the local company stated quite frankly that he did not believe his company would be interested in making tracing facilities available to any organization except the Bureau. His experience has been that other agencies are not as selective in screening their requests as the Bureau and consequently they make unreasonable demands for special services. He pointed out that he did not feel the Bell System would want to make a practice of searching AMA tapes.

In light of the above, this matter must be handled most discreetly both in dissemination of information and relations with operating companies.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Parsons *RP*

DATE: July 12, 1954

FROM : I. W. Conrad *JWC*SUBJECT: SUGGESTION NO. 875-53
BY SA WILMER L. THOMPSON
CONCERNING TRACING TELEPHONE CALLS

Tolson	_____
Boardman	_____
Nichols	_____
Belmont	_____
Glavin	_____
Harbo	_____
Rosen	_____
Tamm	_____
Tracy	_____
Mohr	_____
Winterrowd	_____
Tele. Room	_____
Holloman	_____
M	_____

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You will recall that as a result of the above suggestion, discussed the possibility of tracing telephone calls with officials of Bell Laboratories in New York City, as reflected in my memorandum of February 1, 1954.

On several subsequent occasions Special Agent J. J. Hill of the New York Office and I conferred with various representatives of Bell Laboratories looking toward the development of a system which would permit more effective tracing of telephone calls. It is noted that this project has been under the personal supervision of of Bell Laboratories. Specific attention was devoted to the use of a supersonic signal as a means of tracing, and in addition various methods of attempting to "lock up" a calling line were considered; however, because of the inherent design of the telephone company equipment which places the telephone circuit under the control of the caller rather than under the control of the called party, it became increasingly clear that no satisfactory tracing system could be developed without great expense and without redesign of a large part of the telephone company central office equipment. Such a procedure does not constitute a feasible undertaking.

The Bureau is now in receipt of a letter from the New York Office under date of July 6, 1954, which sets forth the final position of the Bell Laboratories on the project, namely that Bell Laboratories have failed to conceive of any practical approach to the problem at the present time. Accordingly, it is considered that this suggestion has been run out to a logical conclusion and it is not possible to do more at this time.

ACTION:

The attached letter from New York should be referred to the Training Division in order that the suggestion which has been held pending may be closed out.

RECORDED - 8

EX-123

Attachment
IWC:KMB7-23-54
holl

Office Memorandum • UNITED STATES GOVERNMENT

TO: Director, FBI
 FROM: SAC, New York (66-1119)

DATE: 7/6/54

J U N E

SUBJECT: BELL LABORATORIES,
 NEW YORK, NEW YORK

b6
 b7C

Remylet, 3/26/54.

[redacted] Bell Laboratories, 463 West Street, NYC, advised that his organization had given considerable thought and study to the feasibility of developing a tracing system whereby a telephone call could be traced from the receiver's phone to the phone of origin. He stated that his organization had failed to conceive any practical approach to the problem.

[redacted] pointed out some of the newer switching equipment being designed today has incorporated into it certain circuits that should make it more feasible for tracing than existing equipment. He added, however, that this equipment will not see practical application in much less than ten years from now.

[redacted] stated that he is well aware of the Bureau's problem with respect to this subject and will keep the problem in mind with the thought of calling to the Bureau's attention any practical solution that might be conceived at a future date.

7/14 to 10/10

EX-123

RECORDED - 8

80-789-11
 7-14
 1954

SEVEN
Pore

JJH:JH

7-21-54
hwy

[redacted]
 11/13/54

2-27

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI

DATE: March 12, 1953

b6
b7C

CEW FROM : SAC Honolulu

SUBJECT: TRACING TELEPHONE CALLSATTENTION: FBI LABORATORY

Colonel EDWARD L. ORSTAD, U.S. Army Signal Corps, Fort Shafter, Oahu, T.H., has advised me that in assisting CID in an investigative problem involving trying to trace phone calls from some individual who is making obscene calls to wives of military personnel, considerable experimentation has been made as to means of tracing calls.

He said that in the dial system the caller controls the connectors that affect tracing such calls. In other words, if the caller hangs up, all the connectors disappear, whereas if the party called hangs up it does not affect him until the caller hangs up. Also if the person called leaves the phone off the hook it does not prevent the connectors from disappearing. Therefore, in their problem they effected a means of reversing this process so that the telephone being called controls the maintenance of the circuit until that phone is hung up.

I requested that he furnish the details of their connector modification which he has done. Two copies of the explanation of this system with a diagram on the reverse side are forwarded herewith for review at the Laboratory with the suggestion that if not already in use it might prove of value in Bureau investigations.

Encs. (2)

CEW-JCS

SE

RECORDED-53

INDEXED-56

N-80-789-1

MAR 13 1953

Purpose:

By improvising certain circuit changes in telephone equipment so that anonymous calls may be traced to the originator without danger of disconnects.

Advantages:

Call party controls the line leaving phone off the hook until call can be traced.

Disadvantages:

- a. Call must be answered before calling party hangs up.
- b. Can only be operated within the scope of one exchange.
- c. Is best employed after peak traffic hours. If otherwise employed will tend to bottleneck traffic unless all connective banks within the one-hundred banks pertaining to the number called are so wired to permit normal flow of traffic.

Modification Requirements:

1. Disconnect wires from springs 6 and 7 of D relay.
2. Connect ground to spring 6 of D relay.
3. Connect spring 7 of D relay to spring 3 of A relay.

Explanation of Operation:

1. Normally, the operation of relay A places ground on spring 3 which operates relay B. Relay B when operated places ground on the C lead to mark the switch busy and hold preceding switches operated. Since relay A is under the control of the "calling party" when the receiver of the calling telephone is replaced, relay A releases, relay B releases, and ground is removed from the C lead allowing preceding switches to release.

2. With the above modification made on the connector, the operation of relay D, which operates when the "called party" answers, places a multiple ground on spring 3 of relay A and holds relay B operated until the "called party" disconnects.

Remarks:

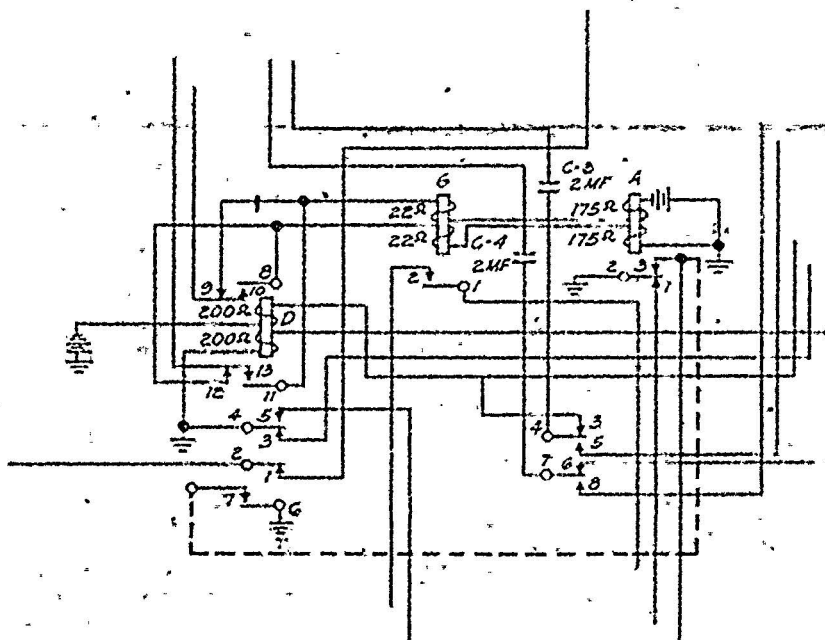
The foregoing modification can only be considered as a temporary expedient to be utilized in special cases and for short periods since one (1) supervisory lead is disconnected to provide this feature. It must also be understood that this modification will permit the "called party" to hold the switch train only within the local office and that if the call originates in some other exchange the switches there will not be held. It must be further understood that the modification as outlined herein applies only to the particular circuit; however, a similar arrangement should be possible on any connector switch encountered. The required changes could be determined after a study of the schematic drawing of the specific switch involved.

See reverse side for circuit diagram

80-789-1

66-11339-124 ENCLOSURE

See reverse side for explanation.



CONNECTOR MODIFICATION
CALLED PARTY RELEASE
REGULAR 200 POINT CONNECTOR CIRCUIT

BS7

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION

EMPLOYEE SUGGESTION

Date December 17, 1953

To: Director, FBI

From: WILMER L. THOMPSON, Special Agent

Field Office or Division Savannah

SUGGESTION: In view of the recent difficulty in tracing telephone calls in the GRENAP Case, the following suggestion is made:

It is suggested that the Radio and Electrical Sections of the FBI Laboratory conduct experiments to develop a means of rapid tracing of telephone calls. It is suggested that this may be done by imposing a radio-frequency of super-sonic frequency on the telephone line at the home of the victim whenever a call is received from a kidnaper or extortionist, the imposed radio or super-sonic frequency thereupon being traced by suitable electronic detectors at the Central Office of the Telephone Company.

Its advantages are: The use of such device should enable the telephone men in the Central Office to quickly pin-point the circuit being used by the kidnaper. Preliminary experiments would involve the imposing of a radio frequency on one line to the Radio Section and checking to see if the frequency will go to the Central Office of the telephone company and return on another line, dialed from the first (Cont'd.)

It should save at least \$_____ annually.

The use by the United States of my suggestion shall not form the basis of a further claim of any nature by me, my heirs, or assigns upon the United States.

Wilmer L. Thompson
(Signature of Suggestor)

80-789-2

Comments and recommendation of Supervisor, SAC, or Assistant Director: SAC LOPEZ: This is a technical matter and its feasibility, not known to writer. If practical, I am sure would be of great value to Bureau. Feel, however, that the Radio Section has already given this or similar techniques its consideration.

Ark 12-23-53
cc: SAC, Savannah
HHC: atn

Referred to Sup Air
95A Lab for
using. action to
JAN 25 1954
atn

RECORDED-12

INDEXED-12

See Conf memo 1/12/54
EDM:dmz
let to employee
cc SAC Savannah
1/13/54 GCG:atn

DEC 21 1953

John Lopez
(Signature)
Special Agent in Charge
(Title)

PERS. FILE

TELE. FILE

UNRECORDED FILED IN 62-21611-1

line.

It is possible, and quite probable, that certain radio frequencies will become dissipated in the telephone cable while other frequencies will go from one to the other phone involved. For this reason it is suggested that experiments also be conducted with super-sonic frequencies which have characteristics similar to audible frequencies.

Since the tracing of telephone calls is primarily the function of the telephone company whose complete cooperation must in all instances be obtained, it is suggested that an agent of the New York Division or a representative from the FBI Laboratory contact the appropriate officials of the Bell Laboratories Research Division of the Bell Telephone System, located at New York City, in order that the entire matter of tracing telephone calls may be thoroughly gone into and the assistance and cooperation of that research center obtained for definite experimental work to devise a method to quickly trace telephone calls.

The development of a successful method of tracing telephone calls would result in tremendous savings in money in kidnaping and extortion cases. It would also be of great benefit to the telephone companies in tracing the origin of the many nuisance calls made to subscribers from time to time.

It is desired that any award resulting from this suggestion be placed in the Special Agents Insurance Fund.

875-153

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Harbo

DATE: *Dec. 28, 1953*

FROM : I. W. Conrad

SUBJECT: SUGGESTION No. 875-53
BY SA WILMER L. THOMPSON

53

WMA

Tolson _____
Ladd _____
Nichols _____
Belmont _____
Glavin _____
Harbo _____
Rosen _____
Tracy _____
Gearty _____
Mohr _____
Winterrowd _____
Tele. Room _____
Holloman _____
 Sizoo _____

b6
b7C

Reference is made to the above-numbered suggestion made by SA Wilmer L. Thompson of the Savannah Office relating to the development of a means of rapid tracing of telephone calls.

There are two phases to SA Thompson's suggestion: the first involves imposing a radio frequency or supersonic frequency on the telephone line at the home of the victim, which signal would be useful at the telephone company central office for locating the calling line; the second involves contacting appropriate officials of the Bell Laboratories in order that the assistance of the Bell System may be made available on the problem generally.

With regard to the first phase of the suggestion, we already know approximately the limitations of the supersonic radio frequencies on telephone lines, and we therefore are in a position to state that this proposal, if it would work at all, would work only under certain restricted conditions and, therefore, would not provide a general solution. For example, it possibly would work if the victim's home were located within several hundred feet of the telephone central office. It almost certainly would not work if the victim were a mile away from the central office in a metropolitan area. However, I feel that rather than imposing the supersonic frequency on the telephone line at the home of the victim, it might be possible to impose such a supersonic frequency on the victim's line at the central office thereby avoiding the technical limitation imposed by distance.

With regard to the second phase of the proposal, namely that the assistance of Bell Laboratories be solicited on the problem generally, I agree that this should be done, particularly since the tracing of a telephone call must necessarily be handled by the telephone company at the central office involved. At the time of contacting the Bell representative, the possibility of supersonic signal approach could be suggested by the Bureau representative.

RECOMMENDATION:

Accordingly, I concur in Thompson's recommendation that a representative from the FBI Laboratory contact appropriate officials of Bell Laboratories for the purpose indicated.

Exec Conf Memo 1/2/54
EDM:dmg/GCC:BN
JAN 6 1954

Memo to Messrs
Tolson & Harbo
1/13/54 - G.C.G.: atre

RECORDED - 122

EX-122

JAN 19 1954

RECEIVED
FEB 11 1964

December 30, 1953

SUGGESTION #875-53
MADE BY SPECIAL AGENT
WILMER L. THOMPSON OF
THE SAVANNAH OFFICE

The general Investigative Division is of the opinion that any practical method which can be developed which would facilitate the tracing of telephone calls would be of great value and every effort should be made to develop such a method. In the Greenlease kidnaping case technical difficulties precluded the tracing of most of the telephone calls and if these difficulties had been overcome, it would undoubtedly have been possible to effect the identity of the subjects at an earlier date.

*Ref
Bost
RJRm*

80-789-✓

~~63-1211~~
NOT RECORDED

7 JAN 19 1954

58 MAR 10 1954

~~53 JAN 29 1954~~

F-482

2-14
FILES

UNRECORDED COPY FILED IN 62-1117-1

Office Memorandum • UNITED STATES GOVERNMENT

TO : MR. TOLSON

DATE: 1/12/54

FROM : EXECUTIVES CONFERENCE

SUBJECT: SUGGESTION #875-53
MADE BY SA WILLER L. THOMPSON
SAVANNAH OFFICE

b6
b7C

Tolson
Ladd
Nichols
Belmont
Clegg
Glavin
Harbo
Rosen
Tracy
Gearty
Mohr

SUGGESTIONS:

- (1) In view of the recent difficulty in tracing telephone calls in the Grenap case, the following suggestion is made:

That the Radio and Electrical Sections of the FBI Laboratory conduct experiments to develop a means of rapidly tracing telephone calls. This may be done by imposing a radio frequency of supersonic frequency on the telephone line at the home of the victim whenever a call is received from a kidnaper or extortionist, the imposed radio or supersonic frequency thereupon being traced by suitable electronic detectors at the central office of the Telephone Company. Use of such a device should enable the telephone men to quickly pinpoint the circuit being used by the kidnaper.

- (2) It is possible and quite probable that certain radio frequencies will become dissipated in the telephone cable while other frequencies will go from one to the other phone involved. Therefore, it is suggested that experiments also be conducted with supersonic frequencies which have characteristics similar to audible frequencies.

- (3) It is pointed out by the suggesting employee that, since the tracing of telephone calls is primarily the function of the telephone company whose complete cooperation must in all instances be obtained, the Bureau may wish to have an Agent of the New York Division or a representative of the FBI Laboratory contact appropriate officials of the Bell Laboratories Research Division, Bell Telephone System, located in New York City, in order that the entire matter of tracing telephone calls may be thoroughly gone into and the assistance and cooperation of that research center obtained for definite experimental work to devise a method to quickly trace telephone calls.

The suggesting employee has in mind that the development of a successful method of tracing telephone calls would result in tremendous savings in money in Kidnaping and Extortion cases and would also be of great benefit to telephone companies in tracing the origin of many nuisance calls made to subscribers from time to time.

cc-Mr. Mohr

Mr. Glegg

EDH:ang 10 1954

RECORDED - 75

EX - 122

JAN 19 1954

Attachment 5A

UNRECORDED COPY FILED IN 62-31261

Memorandum for Mr. Tolson

OBSERVATIONS:

The Investigative Division is of the opinion that any practical method which can be developed which would facilitate the tracing of telephone calls would be of great value and every effort should be made to develop such a method. The Investigative Division advised that in the Greenlease Kidnaping case technical difficulties precluded the tracing of most of the telephone calls and, if these difficulties had been overcome, it would undoubtedly have been possible to effect the identity of the subjects at an earlier date.

The Laboratory already knows approximately the limitations of supersonic radio frequencies on telephone lines and is in a position to state this proposal, if it would work at all, would work only under restricted conditions and would not provide a general solution. For example, it possibly would work if the victim's home were located within several hundred feet of the telephone central office, but it almost certainly would not work if the victim were a mile away from the central office in a metropolitan area. The Laboratory feels that rather than imposing the supersonic frequency on the telephone line at the home of the victim it might be possible to impose such a supersonic frequency on the victim's line at the central office thereby avoiding the technical limitation imposed by distance.

The Laboratory concurs with SA Thompson's recommendation that a representative of the FBI Laboratory contact appropriate officials of Bell Laboratories and at the time of contacting the Bell Laboratories representative the possibility of supersonic signal approach could be suggested by the Bureau representative.

EXECUTIVES CONFERENCE CONSIDERATION: GCG:ATN

The Executives Conference on January 11, 1954, with Messrs. Glavin, Tracy, Harbo, Mohr, Belmont, Ladd, Rosen, Nichols, and Gearty present, was unanimously in favor of having a representative of the Laboratory make contact with the officials of the Bell Laboratories for the purpose of determining whether some method might be worked out which would permit telephone calls to be more rapidly traced.

The Conference was of the opinion that the Laboratory representative should discuss with the representatives of the Bell Laboratories the possibility of using a radio frequency of supersonic frequency on telephone lines. In the event you approve, the attached letter to the suggesting employee advising him of this action, and the attached memorandum to Messrs. Tolson and Harbo should go forth.

2-13-54
JH

GH
V
X

January 13, 1954

MEMORANDUM TO MR. TOLSON
HARBO

You will recall that on January 11, 1954, the Executives Conference considered a suggestion made by Mr. Wilmer L. Thompson of the Savannah Office proposing that experiments be conducted to develop a means of rapidly tracing telephone calls. The Conference was unanimously in favor of having a representative of the FBI Laboratory contact officials of the Bell Laboratories in connection with this matter, and was of the opinion that the Laboratory representative should discuss the possibility of using a radio frequency of supersonic frequency on telephone lines.

You are instructed to make arrangements for a representative of the FBI Laboratory to meet with officials of the Bell Laboratories to discuss the above matter.

RECORDED-19

INDEXED-19

80-789-5
Very truly yours,

JAN 15 1954

130

John Edgar Hoover
Director

(SUGG. #875-53)

(Above based on Exec Conf memo 1/12/54)

GCG:atn

Tolson _____
Ladd _____
Nichols _____
Belmont _____
Clegg _____
Glavin _____
Harbo _____
Rosen _____
Tracy _____
Gearty _____
Mohr _____
Winterrowd _____
Tele. Room _____
Holloman _____
Miss Gandy _____

JAN 19 1954

RECEIVED
JAN 13 2 16 PM '54

3-1-54
JAN 13 1954

b6
b7C

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Harbo *Harbo*
FROM : I. W. Conrad *Conrad*
SUBJECT: KIDNAPPING INVESTIGATIONS

DATE: January 15, 1954

67-2-74

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As a result of his attendance in the Specialized In-Service school SA [redacted] has suggested that instructions in the Manual of Instructions concerning kidnapping be amended to include the following:

Whenever possible a low gain amplifier be used to monitor the victim's telephone in his home instead of the use of an extension telephone. When properly connected the amplifier should not affect transmission or reception on the victim's telephone and too would prohibit any extraneous noises from feeding onto the line through the extension transmitter. In the event it is not possible to employ an amplifier for this purpose an extension telephone may be used and to prevent any pickup of extraneous noises by the monitoring telephone the transmitter of this instrument should be removed. By removing the transmitter it is not possible to accidentally intercept a telephone call as might be accidentally done with a normal extension telephone.

CKC:vrh

ADDENDUM *HWG:vrh* 1-18-54 Under present practice an extension telephone is sometimes installed to permit the agent in the victim's home to listen in on pertinent telephone calls from the subject. [redacted] proposal that a listening device only be used for this purpose would eliminate the undesirable possibility that extraneous sounds might get back onto the line from the agent's telephone.
RECOMMENDATION: Favorable.

80-789-✓

NOT RECORDED
199 JAN 29 1954

Ask 1-25-54
Mr. Harbo
ATP

F 143
MAR 10 1954

JAN 29 1954
28
RTH
GAS

ORIGINAL COPY FILED IN 67-2-74

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Quinn Tamm *QTT*
 FROM : I. W. Conrad *IWC*
 SUBJECT: SUGGESTION BY SA WILMER L. THOMPSON CONCERNING
 TRACING TELEPHONE CALLS

DATE: February 1, 1954

Tolson ☒
 Ladd ☒
 Nichols ☒
 Belmont ☒
 Glavin ☒
 Harbo ☒
 Rosen ☒
 Tracy ☒
 Mohr ☒
 Tele. Rm. ☒
 Nease ☒
 Gandy ☒

In connection with the above-entitled matter, you will recall that the Bureau approved SA Thompson's suggestion that officials of Bell Laboratories be contacted in an effort to develop more expeditious means of tracing telephone calls in major cases such as kidnappings.

On January 27, 1954, in accordance with a prior appointment made by the New York Office, Mr. Conrad and SA [redacted] of the New York Office interviewed [redacted] of Bell Laboratories in New York City. The problem encountered by the Bureau in attempting to trace calls was outlined to [redacted] and the great investigative assistance which could be rendered by such tracing, as for example, the tracing of calls from a kidnapper, was emphasized. Specific reference was made to the recent Greenlease kidnapping case in which several telephone calls were received from the kidnapper, none of which could be quickly and sufficiently traced. [redacted] advised that it was the general policy of the Bell Laboratories to be of as much assistance as possible to the FBI, and he expressed great admiration for the Director and the work of the Bureau.

Following the initial discussion with [redacted] Mr. Conrad and [redacted] were referred to [redacted] who was given the assignment by [redacted] of following the problem to completion. The technical problems were discussed in considerable detail with [redacted] and specifically the possibility of employing a supersonic electrical signal on the telephone line in question was proposed to [redacted] as was also the possibility of the use of "locking" relays. [redacted] indicated that an immediate study of the various kinds of telephone company central office equipment would be undertaken in order to define more clearly the nature of the technical problems which were involved, and that after completion of such a preliminary survey, he would get in touch with us preparatory to going further with the matter.

The men interviewed were most co-operative, and I believe that if a solution is feasible, it will be forthcoming from this study.

ACTION: The Laboratory will follow when ready for a further discussion.

[redacted] is to contact Mr. Hill

IWC:ctw

CTW

INDEXED-84

FEB 10 1954

52 FEB 10 1954

FEB 10 1954

2-M
FEB 10 1954

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Harbo *RB*

DATE: 2/12/54

b6
b7c

FROM :

SUBJECT: SUGGESTION (73-54)
KIDNAPINGSuggestion

SAC Hostetter suggested that each field office be required to make a confidential survey in headquarters cities to ascertain the technical difficulties encountered in tracing telephone calls in the dial system and the procedure which would be followed in the event this co-operation would be extended. It is believed that some telephone company employees will approach the problem with more vigor and determination and perhaps suggestions from them at this time would be of assistance in other sections at a later date. Under all circumstances, the tracing of an incoming telephone call must begin immediately and the telephone representatives in charge of this operation should be immediately advised when it has been determined that a tracing is not necessary. A direct line for this notification is desirable.

Mr. Tolson	_____
Mr. Ladd	_____
Mr. Nichols	_____
Mr. Belmont	_____
Mr. Clegg	_____
Mr. Glavin	_____
Mr. Harbo	_____
Mr. Rosen	_____
Mr. Tracy	_____
Mr. Mohr	_____
Mr. Trotter	_____
Mr. Winterrowd	_____
Tele. Room	_____
Mr. Holloman	_____
Miss Gandy	_____

Observations of the Training & Inspection Division

It was further noted that the above suggestion dovetails with a suggestion submitted by SA Wilmer Thompson (875-53), which has already been considered by the Executives Conference. At that time, the Executives Conference granted authority for discussions between the FBI Laboratory and the Bell Laboratories of New York City. On January 27, 1954, I. M. Conrad of the Laboratory and SA [redacted] of the New York Office contacted [redacted] of the Bell Laboratories, regarding this problem. Upon conclusion of the investigation by the Bell Laboratories, the results will be furnished to the Bureau.

Recommendation

It is suggested that this memorandum be routed to the FBI Laboratory for information in order that, if problem is resolved, the laboratory will thereafter furnish this information to the Executives Conference and, if approved, to all SACs.

*Added in Lab
+ tickler set.
2/17/54
JWC*

*215
FHS:db*

MAK 11 1954

RECORDED

*180-789-7
7-2T
R
P*

Mr. Harbo

2/12/54

SUGGESTION (54-54)
KIDNAPIN'

Suggestion

Suggestion was made by SA [redacted] at specialized in-service school that field offices should keep a running evidence log as follows:

1. Each item should have a different number starting with 1.
2. Also the number should be the same as the 1A number or exhibits number.
3. Or the Agents should place their initials beside each number.

Observations of the Training & Inspection Division

[redacted] of the Laboratory advised that the above information was presently being studied by the Laboratory and at the next conference the above information would be discussed in an effort to arrive at a possible solution. It is noted here that the laboratory expert, as outlined in the Manual of Instructions, is held strictly responsible for the preparation and mailing of all exhibits to the Bureau Registered Mail and the maintaining of a register of packages being forwarded to the Bureau so that it would be possible to search for and trace a package that may become lost.

Recommendation

That this memorandum be routed to the FBI Laboratory in order that the above action may be taken, after which the Laboratory should prepare a memorandum for Executives Conference consideration in this regard.

Tolson _____
Ladd _____
Nichols _____
Belmont _____
Clegg _____
Glavin _____
Harbo _____
Rosen _____
Tracy _____
Gearty _____
Mohr _____
Winterrowd _____
Tele. Room _____
Holloman _____
Miss Gandy _____

80-787-7

PHS:ab

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Tamm

DATE: March 8, 1954

FROM : I. W. Conrad

SUBJECT: SUGGESTION BY SA WILMER L. THOMPSON
CONCERNING TRACING TELEPHONE CALLS

Tolson _____
Ladd _____
Nichols _____
Belmont _____
Clegg _____
Glavin _____
Harbo _____
Rosen _____
Tracy _____
Gearty _____
Mohr _____
Winterrowd _____
Tele. Room _____
Holloman _____
Sizoo _____
Miss Gandy _____

Reference is made to my memorandum of February 1, 1954, relative to the above-entitled matter reporting the results of a preliminary discussion of the instant problem with officials of Bell Laboratories in New York City.

On March 3, 1954, [redacted] of Bell Laboratories, and [redacted] came to Washington to report the outcome of their further study of the telephone-call tracing problem. At that time, the problem was gone into in great detail. Mr. J. J. Hill of the New York Office, Messrs. [redacted] and Conrad taking part in the discussion with the Bell officials. The net result of the discussion was to the effect that as a general proposition telephone calls could be traced only by expensive and comprehensive modifications of existing telephone equipment in the various telephone exchanges. The scope of such changes is such that it does not represent a practical solution. With regard to the more specialized problem of possibly speeding up telephone-call tracing techniques in some instances, [redacted] indicated that there was still a little work which remained to be done in exploring this aspect of the problem and that they would advise us further upon the completion of such work. However, [redacted] was not at all optimistic about being able to offer real improvement.

b6
b7C

Upon completion of the interview, [redacted] were taken on a detailed tour of the Laboratory. Throughout their visit they appeared most cooperative and appeared very appreciative of the opportunity to tour the Lab.

ACTION:

The Laboratory will follow and furnish a final report upon completion of the project.

IWC:KMB

RECORDED-19

80-789-8
MAR 10 1954

EX-127

[Handwritten signature]

[Handwritten signature]

MAR 10 1954

FEDERAL BUREAU OF INVESTIGATION
UNITED STATES DEPARTMENT OF JUSTICE

0-9

To: COMMUNICATION. MARCH 15, 1954

DEFERRED

Transmit the following message to:

SAC, NEW YORK
ATTENTION: SA J. J. HILL

IN ACCORDANCE ORAL INVITATION ~~BELL~~ LABORATORIES, SA I. W. CONRAD
WILL ARRIVE ~~11~~ MORNING MARCH SIXTEEN FOR FURTHER CONFERENCE
WITH BELL LABORATORIES OFFICIALS IN COMPANY WITH AGENT HILL
YOUR OFFICE.

HOOVER

IWC:KMB

NOTE: In connection with Bureau approved consideration of
suggestion matter relating to tracing of telephone calls,
it is noted that Agents Conrad and Hill first conferred
with Bell Laboratories officials at New York City; sub-
sequently on March 3 representatives of Bell Laboratories
came to Washington to discuss the matter further. Agent
Hill now orally has advised that Bell officials have
suggested a further meeting on March 16 in New York.

Tolson _____
Ladd _____
Clegg _____
Glavin _____
Nichols _____
Rosen _____
Tracy _____
Harbo _____
Belmont _____
Mohr _____
Tele. Room _____
Nease _____
Gandy _____

RECORDED-34

INDEXED-34

MAR 18 1954

FEDERAL BUREAU OF INVESTIGATION
U. S. DEPARTMENT OF JUSTICE
COMMUNICATIONS SECTION

MAR 15 1954

58 MAR 30 1954 TELETYPE

SENT VIA

Per

FEDERAL BUREAU OF INVESTIGATION
U. S. DEPARTMENT OF JUSTICE
COMMUNICATIONS SECTION

MAR 15 1954

TELETYPE

NEW YORK 1 FROM WASH DC 3-15-54 3-11 PM

SAC DEFERRED

ATTENTION SA J. J. HILL

IN ACCORDANCE ORAL INVITATION BELL LABORATORIES, SA I. W. CONRAD
WILL ARRIVE NYC MORNING MARCH SIXTEEN FOR FURTHER CONFERENCE
WITH BELL LABORATOIRES OFFICIALS IN COMPANY WITH AGENT HILL
YOUR OFFICE.

HOOVER

END AND ACK PLS

WA R 1 NYC DBC

TU DISC

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Tamm

DATE: March 19, 1954

FROM : I. W. Conrad

b6
b7C
b7D

Tolson	_____
Ladd	_____
Nichols	_____
Belmont	_____
Clegg	_____
Glavin	_____
Harbo	_____
Rosen	_____
Tracy	_____
Laughlin	_____
Mohr	_____
Winterrowd	_____
Tele. Rm.	_____
Holloman	_____
Gandy	_____

SUBJECT: SUGGESTION #875-53 BY
SA WILMER L. THOMPSON
CONCERNING TRACING TELEPHONE CALLS

Reference is made to my memorandum of March 8, 1954, relative to the above-entitled matter reporting the results of a further discussion of the instant problem on the occasion of a visit to the Laboratory by representatives of Bell Laboratories.

On March 16, 1954, in response to a further invitation from representatives of Bell Laboratories in connection with the tracing problem, I proceeded to New York, and in company with SA J. J. Hill of the New York Office conferred with [redacted] President of Bell Laboratories, who has been handling the problem for Bell Laboratories. [redacted] advised that as a result of their further exploration of the problem, it now appeared extremely unlikely that a feasible solution to the telephone call tracing problem would be forthcoming. They have explored the major avenues with negative results and there are only a few more minor items which they wish to study further before winding the project up completely.

[redacted] advised that he was very sorry the Bell Laboratories had been unable to be of any substantial assistance but pointed out that the entire telephone system has been engineered primarily for one purpose, and the tracing of telephone calls represents, from an engineering standpoint, almost an exact reversal of the normal objective; hence major design and engineering changes of equipment already installed would be required to produce an over-all solution. He further indicated that he would communicate with us when they have completely finished with the problem.

ACTION:

Laboratory will follow project to completion.

IWC:kmb

RECORDED - 65

MAR 25 1954

SEVEN

DATE OF MAIL 7/6/54

HAS BEEN REMOVED FOR TO BE KEPT PERMANENTLY IN HIS
OFFICE, ROOM 1736

b6
b7C

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL

REMOVED BY 57 JUL 23 1954

FILE NUMBER 88-789-11

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 7/12/54

HAS BEEN REMOVED FOR TO BE KEPT PERMANENTLY IN HIS
OFFICE, ROOM 1736

b6
b7c

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL

REMOVED BY 57 JUL 23 1954

FILE NUMBER 88-789-12

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL

3/26/57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

*Tracing of Telephone
Calls*

59 APR 25 ³⁹⁴ 1957

REMOVED BY

FILE NUMBER

80-789-13

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL

4-3-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

Tracing Telephone Calls

REMOVED BY

³⁹⁴
57 APR 19 1957

FILE NUMBER

80-789-14

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL

4/3/57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

Tracing Telephone Calls.

REMOVED BY

51 [illegible]

FILE NUMBER

80-789-15

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL

4 / 10 / 57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

Tracing Telephone Calls.

REMOVED BY

51 APR 26 1957

FILE NUMBER

80-789-16

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL

4 / 11 / 57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

Tracing Telephone Calls.

REMOVED BY

51 APR 22 1957

FILE NUMBER

80-789-17

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL

4/11/57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

Incoming Telephone Calls -

REMOVED BY

51 APR 22 1957

FILE NUMBER

80-789-18

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL

4/12/57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

Tracing Telephone Calls

REMOVED BY

51 APR 30 1957

FILE NUMBER

80-789-19

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL

4 / 12 / 57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

Tracing Telephone Calls.

REMOVED BY

51 APR 22 1957

FILE NUMBER

80-789-20

PERMANENT SERIAL CHARGEOUT

April 16, 1957

AIR-TEL

SAC, DETROIT

Re: TRACING OF TELEPHONE CALLS

Rebulet to Boston 3-28-57 captioned as above. Advise when reply can be expected.

Hoover

1 - New York
1 - San Francisco

RECORDED-3

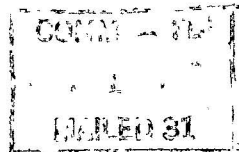
86-7-7-21

EX. - 120

4 APR 17 1957

Note: Bulet of 3-28-57 to Boston, with copies to various offices, requested information re Tracing of Telephone Calls and no answers received as yet from of fices listed in this Air-tel.

CKC:ART
8



Tolson _____
Nichols _____
Boardman _____
Belmont _____
Mason _____
Mohr _____
Parsons _____
Rosen _____
Tamm _____
Nease _____
Winterrowd _____
Tele. Room _____
Holloman _____
Gandy _____

64 APR 23 1957

DATE OF MAIL 4-18-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC
INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone Calls*

REMOVED BY 59 APR 25 1957³⁹⁴

FILE NUMBER 80-789-22

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 4-19-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC
INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone Calls*

³⁹⁴
50 APR 25 1957

REMOVED BY _____

FILE NUMBER 80-789-23

PERMANENT SERIAL CHARGEOUT

FBI

Date: 4/17/57

Transmit the following message via AIRTEL

AIR MAIL

(Priority or Method of Mailing)

TO : Director, FBI

FROM: SAC, Detroit (66-2174-323)

RE : TRACING OF TELEPHONE CALLS

ReBuairtel 4/16/57.

Requested information submitted by memorandum dated 4/15/57.

3 - Bureau (AM)

1 - Detroit

CWB:HLH

(4)

Mr. Tolson _____
Mr. Nichols _____
Mr. Boardman _____
Mr. Belmont _____
Mr. Mohr _____
Mr. Parsons ✓ _____
Mr. Rosen _____
Mr. Tamm _____
Mr. Trotter _____
Mr. Nease _____
Tele. Room _____
M _____

730-22 10:10 PM 4/18

Rec'd in lab by U.S. 10:10 PM 4/18

10:10 PM 4/18

RECORDED - 83

20 APR 23 1957

Mr. Parsons

EX-127

Approved: _____
Special Agent in Charge

Sent _____ M Per _____

FBI
NY., NY.

Date: 4/18/57

Transmit the following message via AIRTEL

(Priority or Method of Mailing)

TO: DIRECTOR, FBI

FROM: SAC, NEW YORK

SUBJECT: TRACING OF TELEPHONE CALLSReBuairtel to Detroit, dated April 16,
1957.

Reply being sent to Bureau, 4/19/57.

KELLY

3-Bureau (RM)
1-New York

Mr. Parsons

JJH:pec
(5)

RECORDED - 1

80-789-25

13 APR 25 1957

No reply necessary on this

Approved: *J. J. Kelly*

Special Agent in Charge

Sent _____ M Per _____

Mr. Tolson	_____
Mr. Nichols	_____
Mr. Boardman	_____
Mr. Belmont	_____
Mr. Mohr	_____
Mr. Parsons	_____
Mr. Rosen	_____
Mr. Tamm	_____
Mr. Trotter	_____
Mr. Nease	_____
Tele. Room	_____
Mr. Holloman	_____

b6

b7C

67 APR 25 1957

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI (66-6200-149)

DATE: 4/18/57

SAC, Indianapolis (149-00)

SUBJECT: DESTRUCTION OF AIRCRAFT OR
MOTOR VEHICLES
(FALSE REPORT)b6
b7C

Re Bureau letter to Albany dated 4/10/57 and report of SA [redacted] dated 4/4/57 at Indianapolis captioned, "UNKNOWN SUBJECT; REPORT OF BOMB PLACED ON EASTERN AIRLINES PLANE SCHEDULED TO DEPART INDIANAPOLIS AIRPORT, MARCH 18, 1957."

The Indianapolis Office has but one case on file under the captioned subject (see reference); however, as a result of the investigation conducted in this case it has made this office extremely conscious of the lack of leads on which to base an investigation. During the one investigation conducted on the captioned matter, agents learned that the Airlines Management and Airport Management maintained no files indicating psychopathic complaints, dissatisfied employees or patrons. Further that the switchboard operators and reservation clerks of the airlines had had no formal instructions in the handling of matters of this kind.

On 4/8/57, [redacted] Eastern Airlines Traffic [redacted] with whom this office maintains liaison, contacted the Indianapolis Office and advised that due to the false "bombing scare" the airlines in the Indianapolis area realize that they had no standard operational procedure by which their personnel could operate in emergencies of this type. Therefore, a closed and confidential meeting was scheduled for the following day, to be attended by the Traffic Managers of the various airlines in Indianapolis and airport management for the purpose of establishing a standard operational procedure. [redacted] desired to know if there was anything he could mention at the meeting that would aid the FBI in the conducting of investigations of the captioned type. He was discreetly advised of the following:

- 2 - Bureau
- 1 - Indianapolis

GCR: [redacted]
(3)

NOT RECORDED

148 MAY 29 1957

FBI
INTERVIEW SECURITY REG.

APR 22 1957

V68 55 3 24 11 21

V68 55 15 43 11 21

V68 55 3 32 11 21

RECEIVED

357

APR 24 1957
FBI

TRACING TELEPHONE CALLS

ORIGINAL COPY FILED IN 66-6200-149-142

IP 149-00

(1) Notify the FBI and local law enforcement by the fastest possible means, upon receipt of any information of false reporting, threat or destruction of aircraft or motor vehicles.

(2) Maintenance of a list or file of dissatisfied and irate employees and patrons. Maintenance of a file of psychopathic complainants.

(3) Proper instructions to switchboard operators and reservation clerks to obtain all available information from the caller or subject, listen for background noises on the subject's phone which might lead to the possible identity of the subject or location of the subject. Attempt to encourage the subject to talk and delay disconnection of contact. Attempt to obtain description and verbatim statement of subject.

On 4/10/57 [] advised the Indianapolis Office that the following was the result of their meeting held on 4/9/57:

AIRPORT PROCEDURE ON THE REPORT OF BOMB PLACED
ABOARD AIRLINES PLANES

b6
b7C

"To All Airlines
Weir-Cook Airport
Indianapolis, Indiana

"From []
Acting Chairman
Station Managers Committee
Indianapolis, Indiana

"Subject: Procedure Bomb Threat
4/16/57

"Because of the bomb threat experienced March 18, 1957, a meeting was held in the Conference Room at Weir-Cook Airport to work out a procedure for a safe and expeditious manner of handling the necessary search of aircraft that might be involved. The persons copied on this memo were in attendance.

IP 149-00

"I. RESERVATIONS ACTION

"Upon receipt of a bomb threat call, the reservations or operations agent receiving the call will handle to keep the person talking as long as possible. If the person appears willing to talk ask for their help in locating the bomb by asking if it is in luggage, air mail, express, etc. Ask if the bomb is on a special flight. Note background noises, such as radio, traffic noises, etc. Try to determine description of person calling with such details as age, sex, etc. While engaging the person in conversation, have another agent notify the FBI at Melrose 2-6415. If this number is not available, dial operator and ask for FBI.

"II. NOTIFICATION OF LOCAL AUTHORITIES

"On receipt of bomb threat, airline involved will notify

(1) [redacted]
Airport Special Police
TBX No. 16 or
Chapel 4-9538

b6
b7C

[redacted] or his representative will call the following list in the order given:

Control Tower
Chapel 3-1021

State Police (Operations Desk)
Chapel 4-2422

Indianapolis Police (Desk Lieutenant)
Melrose 6-3581

CAA Air Traffic
Chapel 4-3011

Air Mail P. O.
TBX 80

Air Express.
TBX 36

IP 149-00

"Airport police will be stationed at the gas truck gate to direct official cars to the ramp and aircraft involved.

"III. AIRCRAFT HANDLING

"(1) Notify flight crew to have passengers remove all personal items on the plane.

"(2) Park aircraft at extreme West edge of ramp in line between South end of concourse and tetrahedron.

"(3) Airline employees will unload all cargo; remove to a safe distance from aircraft. Search of luggage will be made by a member of Indianapolis Police Bomb Squad with two airline employees as witnesses to avoid possible loss claims. Locked luggage will be inspected after obtaining key and permission from passenger. A search of mail bags will be made by a member of the air mail field. Air express will be returned to the air express office advising them of the reason. In order to speed up the search of luggage the State Police fluoroscope will be used if available.

"(4) Airline mechanic and member of Indianapolis Bomb Squad will conduct a thorough search of the empty aircraft.

"It is recognized that the above are basic rules and to Minimize confusion and possible conflicting orders, it is imparative that airline personnel in charge will have full authority in coordinating various other agencies involved.

"/s/

b6
b7c

Above procedure is binding only on the airport and airlines in the Indianapolis area.

On 3/22/57, MARTIN LUICHINGER, Chief Coordinator, Indiana Bell Telephone Company, Indianapolis, Indiana, an SAC contact, was interviewed in regard to the false reporting investigation conducted in connection with referenced report,

IP 149-00

at which time LUICHINGER stated he knew of no way of solving the problem of tracing the type of telephone call received in the false reporting and/or destruction type of aircraft investigations.

As a result of referenced letter and because LUICHINGER is a highly trained and experienced telephone company engineer [REDACTED]

[REDACTED] he was recontacted and the problem of tracing telephone calls of the type set out in referenced letter was discussed with him. LUICHINGER states that as a result of the first contact he had given this matter considerable thought and he believed he had devised a method of determining the number from which a subject calls; that it can be done within seconds and the FBI could be notified within minutes.

LUICHINGER explained that if the airlines would lease a wire connected to their switchboard and reservations desk, this wire could be attached to a jamming device in the central office and upon receipt of a call from a subject, the airlines operator could press the button causing the board to freeze and holding the selection arms in place and at the same instant alerting the traffic supervisor at the Central Office of the telephone company to search the board for the call. He stated that even though the subject disconnected, the device would hold the numbers in place until the location of the call could be detected and the FBI notified. LUICHINGER theorized that such a line would cost the airlines less than \$25 per month on a local basis and that a lesser rating could be worked out on a national basis. LUICHINGER pointed out that the details of this device had not been completed; however, he could not foresee any difficulty in its installation.

Mr. LUICHINGER stated that the system by which he intended to assist the FBI and law enforcement presented several problems.

(1) The legal aspect of which the ATT&T Legal Department would have to be satisfied, would leave the company clear and not liable for suit; did not present a breach of

b6
b7C
b7D

IP 149-00

ICC Regulations and federal law. He stated that in the event that the Department of Justice would assist in the securing of rulings legally releasing the telephone companies in this respect, such an installation could be done in the immediate future.

(2) A rate system or establishment of rates would have to be worked out with the Commercial Department of the ATT&T Company. Further that such would have to be done without the public having knowledge of its operation. LUICHINGER pointed out during the week of 4/15/57 he would be in a highly confidential meeting of Bell Telephone engineers, all of whom would be able to aid in such a project and without identifying the FBI he would discreetly solicit their comments and recommendations on the telephone tracing mechanism from the stand point of engineering, legality and commercial rating. LUICHINGER, during the interview, pointed out that in matters where the FBI has jurisdiction involving the preservation of life (Kidnaping, extortion, etc.) and national security, he personally would utilize the method described above and would furnish this information to the FBI on a confidential basis; however, he could not speak for any other Bell Telephone Offices other than the Indiana Bell Telephone Company.

The Bureau will be advised of any additional information furnished by LUICHINGER.

DATE OF MAIL

4-18-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC
INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

Tracing Telephone Calls

REMOVED BY

57 APR 30 1957

FILE NUMBER

80-789-26

PERMANENT SERIAL CHARGEOUT

April 24, 1957

AIRTEL

SAC, Philadelphia

Re: TRACING OF TELEPHONE CALLS

Rebulet 3-28-57 to Boston and urlet
4-11-57 captioned as above. Expedite reply.

Hoover

80-789

RECORDED - 75

80-789-27

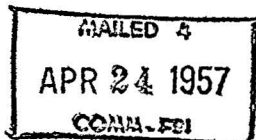
CKC:ART
5

4 APR 26 1957

91-13

Note: Referenced Philadelphia letter of 4-11-57
advised contact out of town and will submit
requested data upon contact's return.

Tolson _____
Nichols _____
Boardman _____
Belmont _____
Mason _____
Mohr _____
Parsons _____
Rosen _____
Tamm _____
Nease _____
Winterrowd _____
Tele. Room _____
Holloman _____
Gandy _____



67 APR 30 1957

DATE OF MAIL 4-25-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone Calls*

REMOVED BY 394

FILE NUMBER 80-789-28

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 4-25-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone Calls*

REMOVED BY 59 MAY 8 1957

FILE NUMBER 80-789-29

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL

May 6, 57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

Tracing Telephone Calls

REMOVED BY

59 MAY 9 1957

FILE NUMBER

80-789-30

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 4-15-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone Calls*

REMOVED BY 57 MAY 13 1957 ³⁹⁴

FILE NUMBER 80-789-31

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 4-15-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone calls*

REMOVED BY 57 MAY 13 1957 ³⁹⁴

FILE NUMBER 80-789-32

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 4-13-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone Calls*

REMOVED BY SP-1 12:10:57
394

FILE NUMBER 80-789-33

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 4-19-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone calls*

REMOVED BY

1-1-1957

394

FILE NUMBER

80-789-34

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 5-7-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC
INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

Tracing Telephone calls

REMOVED BY

⁸⁹⁴
57 MAY 15 1957

FILE NUMBER

80-789-35

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 4-29-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL

Tracing Telephone Calls

REMOVED BY

57 MAY 17 1957

FILE NUMBER

80-789-36

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 5-8-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone calls*

REMOVED BY 57 MAY 17 1957 ³⁹⁴

FILE NUMBER 80-789-37

PERMANENT SERIAL CHARGEOUT

Mr. Parsons

May 17, 1957

b6
b7C

**DESTRUCTION OF AIRCRAFT OR
MOTOR VEHICLES (FALSE REPORT)**

By letters dated 4-18-57 and 5-7-57 the Indianapolis field office reports the interviews with Mr. Martin Luichinger, Chief Coordinator, Indiana Bell Telephone Company, Indianapolis, Indiana. During the interviews Luichinger orally advised SA [redacted] of the Indianapolis office of a technique which he Luichinger considered to be foolproof and an investigative aid to both the Bureau and other law enforcement agencies. The device as described by Luichinger appeared to be phenomenal. The matter was pursued by the Laboratory through local contacts who informed that Luichinger has a tendency to be a "gabby 64 year old man." He is talking about a tracing technique which is known to the Laboratory as annoyance call circuits and it is applicable only to step by step telephone switching equipment. This type of telephone switching equipment has limited application to multiple telephone exchange cities and the technique which he suggests will facilitate tracing a call only in the exchange in which the call is received.

b6
b7C

In view of the fact that this technique is well known to the Laboratory it is suggested that no further consideration be given the suggested proposal made by Luichinger.

ACTION:

None, for information only.

66-2600-149
CKC:ART
6

80-789-✓
NOT RECORDED
145 MAY 29 1957

cc: Bufile 80-789 (Tracing Telephone Calls)
Mr. Belmont, attention [redacted]

b6
b7C

Tolson _____
Nichols _____
Boardman _____
Belmont _____
Mason _____
Mohr _____
Parsons _____
Rosen _____
Tamm _____
Nease _____
Winterrowd _____
Tele. Room _____
Holloman _____
Gandy _____

MAIL ROOM

DATE OF MAIL 5-22-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Training Telephone Calls*
REMOVED BY 5/22/57 394
FILE NUMBER 80-789-38

PERMANENT SERIAL CHARGEOUT

Office Memorandum • UNITED STATES GOVERNMENT

TO :MR. A.H. BELMONT

DATE: April 23, 1957

b6
b7C

FROM

SUBJECT: DESTRUCTION OF AIRCRAFT OR MOTOR VEHICLES
(FALSE REPORT)Tolson
Nichols
BoardmanNease
Winterrowd
Tele. Room
Holloman
Gandy

Bulet to Albany and all other offices 4-10-57 requested field to conduct survey re methods of establishing successful investigative techniques this type of case. In this connection Indianapolis memorandum 4-18-57 advises that Martin Luichinger, chief coordinator, Indiana Bell Telephone Company, stated he believed he had devised method of tracing telephone calls which he described as a leased wire connected to airline switchboard and reservations desk which could be attached to a jamming device in the central telephone office and would allow the airline telephone operator to freeze the circuits by simply pressing a button. He stated that this would hold the selection arms in place and allow telephone company personnel to determine the number from which the call came by checking the central switchboard. Luichinger pointed out that there would be problems in that the American Telephone and Telegraph Company, legal department, would have to be satisfied that this system would not leave the company open to suit, further that the cost would have to be worked out, and that the existence of such equipment would have to be kept secret from the public. Luichinger stated that during the week of 4-15-57 he would be in a meeting of Bell Telephone engineers and would discreetly solicit their comments and recommendation re tracing mechanism.

Luichinger, who is an SAC contact of the Indianapolis Office, stated that he would personally use such equipment in Indianapolis on his own initiative in important cases such as kidnaping, extortion, et cetera, on a confidential basis.

RECOMMENDATION:

In view of the technical aspects of this matter and since the Laboratory has been and is working on this problem, it is recommended that this memorandum and the attached memorandum from Indianapolis dated 4-18-57, be furnished to the Laboratory in order that they may follow this matter with Indianapolis. Any additional information received from field offices as a result of Bulet 4-10-57, pertaining to the technical aspects of this matter, will be forwarded to the Laboratory also.

Enclosure

PRB:111
cc - Belmont

Parsons

(5)

b6
b7CNOT RECORDED
MAY 29 1957

MAY 27 1957

INT. SEC.

61 JUN 4 1957

TRACING TELEPHONE CALLS

ORIGINAL COPY FILED IN

Legal Attache, Tokyo

May 29, 1957

Director, FBI

TRACING TELEPHONE CALLS

RECORDED - 24 80-789-39

The International News Service released an article from Tokyo under date May 23, 1957, that the "Japanese police, with the aid of a new device which automatically registers the telephone from which a call is made, have captured an 18-year-old boy who tried a bomb hoax on the police themselves." The police, according to the article, traced the call within two minutes.

EX 105

It is desired that you discreetly ascertain the complete details of the device described in the article. Your inquiry should include the type of switching equipment on which the tracing technique was applied.

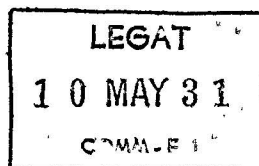
Your reply should be directed to the attention of the FBI Laboratory.

1 - Foreign Liaison Unit (route through for review)

CKC:KMB

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Tolson _____
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Tamm _____
Nease _____
Winterrowd _____
Tele. Room _____
Holloman _____
Gandy _____



153
JUN 6 1957
MAIL ROOM

80-789

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI (66-6200-149)

DATE: May 24, 1957

FROM : SAC, SEATTLE (149-00)

SUBJECT: DESTRUCTION OF AIRCRAFT OR MOTOR
VEHICLES (FALSE REPORT)

ReBulet to Albany, with copies for all other offices, dated April 10, 1957.

Referenced letter pointed out that the Bureau has received no information to indicate any new developments in the tracing of telephone calls.

The following news clipping appeared in the Seattle TIMES for May 23, 1957:

"TOKYO, May 23--(INS)--

"Japanese police, with the aid of a new device which automatically registers the telephone from which a call is made, have captured an 18-year-old-boy who tried a bomb hoax on the police themselves.

"The youth called and said he had placed a time bomb in police headquarters.

"Police said they traced the call within two minutes, using the new device, and arrested the youth who said he staged the hoax because he hated policemen."

Possibly the Bureau may desire to make inquiries concerning this new device.

2-Bureau
1-Seattle
JFD:eon
(3)

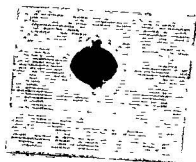
Let Legat, Tokyo
5/29/57
CKC: Amb

RECORDED - 24

EX 105

80-7891-39
6-3
10 MAY 27 1957b6
b7C

UNRECORDED COPY FILED IN
Autostated



DATE OF MAIL 5-28-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone Calls*

REMOVED BY 35 JUN 10 1957 *394*

FILE NUMBER 80-789-40

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 6-21-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone calls*

REMOVED BY 55 JUN 28 1957

FILE NUMBER 80-789-41

PERMANENT SERIAL CHARGEOUT

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI
Attn: FBI Laboratory

FROM : Legat, Tokyo, Japan (64-23)

SUBJECT: TRACING TELEPHONE CALLS.

DATE: 6/13/57

~~SECRET~~ AIR COURIERb6
b7C

Rebulet 5/29/57.

On June 12, 1957, [] Detective, Tokyo Metropolitan Police Department, advised, after consulting with technicians of his department, that the Japanese police have no unusual facilities to trace a telephone call between two regular numbers. However, there is an emergency police number, "110," which citizens may use to call the police department. A special device is connected to this circuit so that even though the calling party hangs up the circuit is not disconnected until the police hang up at their end. It is thus possible to trace the call in a short time.

[] stated that details of this circuit are confidential, but that arrangements could be made for the writer to discuss it with a technician, if desired. This will be done, and the Bureau will be advised.

*No reply necessary one
1cc retained in Electronics Section OK*

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RECORDED - 86

EX-117

80-789-42
18 JUN 20 1957HLC:jar
(3)

55 JUN 1 1957

SEVEN

DATE OF MAIL 6-20-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL Gracing Telephone Calls

REMOVED BY 66-2554-7530 732

FILE NUMBER 80-789-43

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 7-12-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing of Telephone Calls*

REMOVED BY

59 AUG 15 1957

FILE NUMBER

80-789-44

PERMANENT SERIAL CHARGEOUT

DATE OF MAIL 7-23-57

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing of Telephone Calls* ₇₋₂₂₁

REMOVED BY 55 MAY 21 1959

FILE NUMBER 80 - 789 - 44X

PERMANENT SERIAL CHARGEOUT

(C) TELEPHONES TRACING OF TELEPHONE CALLS -- Emergency short-term arrangements effected between your office and local operating telephone companies for the purpose of tracing telephone calls in isolated instances need not be coordinated with the Bureau. However, any office contemplating requesting local operating telephone companies to install expensive telephone equipment and commit telephone company personnel on a long-term basis where many trunk lines are involved, such as is the case with the transportation companies, must clear such requests with Bureau in order to avoid possible cooperation difficulties with the parent telephone company organization.

These instructions must be brought to the attention of all personnel who may be called upon to handle arrangements of this type for your office.

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 8-13-57 BY SP8 BTJ/ACE BY 3/9/83

80-789-
NOT RECORDED
126 AUG 23 57

ORIGINAL FILED IN 66-04-

8-13-57
SAC LETTER # 57 46
63 AUG 27 1957 F-329

INITIALS OF ORIGINATOR

Legal Attache, Tokyo

October 31, 1957

Director, FBI

TRACING TELEPHONE CALLS

Reurlet 6/13/57 to the Bureau advising that the circuit diagram used by the Japanese Police to trace telephone calls would be confidentially obtained and forwarded to the Bureau. To date the circuit diagram has not been received. Advise if the circuit diagram can be made available to you for transmittal to the Bureau and if so advise when the circuit diagram will be forwarded. This matter should be afforded prompt attention.

1 - Foreign Liaison Unit (route through for review)

CKC:rmp
(6)

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6 8 NOV 8 1957

EX-131

22 NOV 5 1957

ROOM

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI (ATTN: FBI LABORATORY)

DATE: 11/25/57

FROM : Legat, Tokyo (64-23)

~~SECRET AIR COURIER~~SUBJECT: TRACING TELEPHONE CALLS

Rebulet 10/31/57.

On 10/25/57 [redacted] and Inspector [redacted] of the Tokyo Metropolitan Police Department furnished the following further details.

The central communications room of the Tokyo MPD Headquarters has three identical switchboards to receive calls on the emergency police number, "110". Ordinarily one man can handle this board. During rush periods, which often occur after 8:00 PM, six men may handle the three boards. An average of 150 to 160 calls per day are received on number "110".

On each board is a panel of 96 lights, which show, when a call comes in, through which exchange in Tokyo the call was made. Each exchange has one or more direct lines to the police department on number "110", and these lines are routed through special selectors at the respective exchanges.

If police wish to trace the call, they can flip a "hold" key on the panel, which in effect "calls back" the calling number, causing a continuous ring at the other end, and preventing breaking the circuit. A call is then made to the telephone exchange office, which by checking the special selector for line "110" can determine the number which called and furnish the name and address to which the number is registered in from 5 to 15 minutes. After the "hold" key has been flipped, conversation on the line in question is not possible.

Inspector [redacted] advised he would prepare a diagram of the above system, and furnish it to this office in about ten days.

RECORDED - 9

70-111-46

HLC:uw
(4)

EX 105

12 DEC 3 1957

SEVEN, ONE

1cc returned in [redacted] [redacted]

No [redacted] [redacted]

76 DEC 3 1957

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI

FROM : Legat, Tokyo, Japan (64-23)

SUBJECT: TRACING TELEPHONE CALLS

DATE: 12/4/57

~~SECRET~~ - AIR COURIER

Remylet 11/25/57.

Enclosed are the following documents which were received on 12/4/57 from Superintendent [] of the Tokyo Metropolitan Police Department:

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b7c

- (1) A memorandum in Japanese explaining operation of the special circuit connected to police telephone number 110.
- (2) A diagram of this circuit at the local telephone exchange.
- (3) A diagram of the portion of the circuit used at police headquarters.

It is suggested that the Bureau have enclosures translated for information and reference of the Laboratory.

*No reply necessary. Enclosures returned on the
Electronic Section on 1-3-58*

Enclosures (3)

HLC:cs
(3)

RECORDED-38

80-767 47

3 ENCLOSURE

EX-110

DEC 11 1957

COPY AND [] IN LAB.

FOR LAB. ACTION AND REPORT

7 2 JAN 1958

12-13-5

SECRET

TRANSLATION FROM JAPANESE

TRACING TELEPHONE CALLS

Telephone No. 110 can be called from any outside phone for immediate contact with the Metropolitan Police. In the event of an emergency, it is set up so that any crime can be reported from the telephone located closest to caller.

I shall briefly explain how the number operates. First of all, pick up the receiver and dial 110. The rotation of dial immediately causes equipment at the telephone exchange to operate as indicated by diagram (see diagram) and maintains contact with the Metropolitan Police.

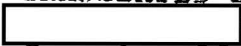
REP equipment installed at the telephone exchange sends a sound to the Metropolitan Police notifying the police that a call is being received. While this transmission takes place, a lamp installed at the police headquarters' switchboard for this particular purpose is lit and a buzz is sent to the receiver to notify of call. When the recipient sets the key to receive, the call sound stops and the lamp indicating "talking" will be lighted. All this happens within a fraction of a minute.

Once the number is dialed, as long as the recipient does not hang up, the line will remain busy. Furthermore, the call will not be disconnected once the number has been dialed though the caller may try to discontinue the call by hanging up the receiver. On the other hand, when a call is completed and the caller hangs up while the other party does not, the line remains connected.

Thus, as long as number 110 has been dialed, and as long as recipient of call does not abandon the line, the equipment at the exchange will remain on call as though the caller is still making the call. Whenever necessary, the caller may be recalled to the phone, or the identity of caller's phone may be traced in this manner.

Furthermore, when a call is received after the parties complete talking but before the receiver is hung up, or when a call is received erroneously, such a call can be traced by receiver of call by disconnecting his call on circuit 110 and awaiting call from the new caller.

TRANSLATED BY:

 ejd
December 16, 1957

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When caller inadvertently dials a number other than 110 and encounters difficulty in maintaining contact with 110 thereafter, the REP equipment at the telephone exchange will disconnect the number and send sound to caller to notify that line is ready for use. However, because there are many telephone numbers whose first two digits begin with 11, the dialing of number 110 should be made carefully.

Because there is no charge for calling number 110, call fee will be returned when the call is completed from a public telephone.

SAC, New York

2-7-58

Director, FBI (80-789)

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TRACING TELEPHONE CALLS

Reurairtel 1-29-58 captioned UNSUBS; [REDACTED] -
VICTIM; EXTORTION, your file 9-2579.

Referenced airtel reports Chief of Police JOHN L. MARTIN, JR. (NA), Poughkeepsie, New York, arranged for installation of Bell Laboratories Tracer and Trouble Detector on victim's home and business telephones.

It is desired that you have an experienced sound-trained agent ascertain the following:

1. Details of the equipment used in this back-tracing operation.
2. The type of telephone company central office (exchange) switching equipment to which this technique can be applied.
3. Is the back-tracing effected manually or electromechanically?
4. Length of time required to trace a call.
5. The area the equipment will back-trace a call, i.e., is it restricted to a local exchange area or can it be used in multiple exchange areas?
6. If this back-tracing technique utilizes a "false trouble" on the victim's line, what circuits are employed to assure trouble reporting equipment being available for each call to victim?

This matter should be afforded prompt attention and your reply directed to the Electronics Section, FBI Laboratory.

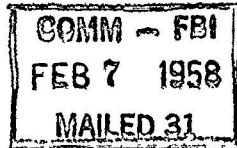
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Gandy _____

CKC:nll

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- 1 - Mr. Rosen (Attention: [REDACTED] 5720)
1 - 9-33747 (Unsubs; [REDACTED] - VICTIM; EXTORTION)

61 FEB 13 1958



18 FEB 11 1958

9-33747-1
ORIGINAL COPY FILED IN

DATE OF MAIL 2-25-58

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT

JUNE MAIL

Tracing Telephone Calls

REMOVED BY 55 MAR 5 1958 4486

FILE NUMBER

80-789-49

PERMANENT SERIAL CHARGEOUT

SAC, Springfield (62-1423)

November 4, 1958

Director, FBI (80-789)

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TRACING OF TELEPHONE CALLS

Reurairtel 10-27-58 captioned 'Unsub; Alleged Bomb Planted in Springfield High School, Springfield, Illinois, 10-22-58, Miscellaneous-Information Concerning.' "

The Bureau is aware of a system of locking-up Step-By-Step telephone switching equipment to preserve the talking path long enough to trace a call back to the calling party. Basically the tracing is effected by grounding the sleeve of the called party's line at the called central office. This holds the call if it originated within the called central office or exchange. It does not hold calls from a foreign exchange.

The Laboratory is desirous of following any developments which will assist in tracing calls. Accordingly, it is desired that you maintain close liaison with the operating telephone company to ascertain the progress of the development of the proposed mechanically operated switchboard to hold telephone calls. Your reply should be directed to the attention of the FBI Laboratory.

OK
CKC:nll
6 *lee*
mn

1 - UNSUB; ALLEGED BOMB PLANTED IN SPRINGFIELD HIGH SCHOOL, SPRINGFIELD, ILLINOIS, 10-22-58, MISCELLANEOUS-INFORMATION CONCERNING

NOV 4 - 1958
COMM-FBI

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80-789-50

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NOV 10 1958

62-1423-2
3 05 6H 28
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Trotter _____
W.C. Sullivan _____
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Holloman _____
Gandy _____

MAIL ROOM ☐ TELETYPE UNIT ☐

UNRECORDED COPY FILED IN 100-135-52

127-177 SAC, Chicago (66-699)

November 26, 1958

REC-55

80-789-51
Director, FBI (80-789)

TRACING OF TELEPHONE CALLS

Reurlet 11-21-58 captioned ANNOYANCE CALL CIRCUIT.

The Bureau is aware of certain systems for locking-up Step-by-Step telephone switching equipment to preserve the talking path long enough to trace a call back to the calling party. The systems, both Automatic Electric and Bell, have, in the past, required the called party to either dial the digit "one" while the call is in progress or press a button on or near the called subscriber's instrument. These systems, such as the Automatic Electric Company "Annoyance Call Holding Repeater Circuit number 61175," have not proven entirely satisfactory because of the short duration of calls of this type and failures on the part of the called party to operate the control circuit. The system outlined in referenced letter appears to overcome these problems.

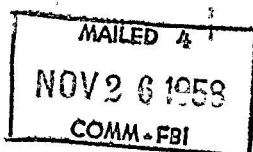
The Laboratory has been advised that the Bell System has no facility to hold a call in either the Panel or Crossbar types of central office switching equipment except by the operation of certain control circuits which will paralyze the operation of the entire central office (exchange) during the tracing period. This would, of course, not be a desirable situation. In the new Number Five Crossbar systems, certain test equipment can be used to record the routing of telephone calls. This system of recording is merely an aid in tracing the call through central office equipment and will not identify the number of the calling party.

The Laboratory is desirous of following any developments which will assist in tracing calls. Accordingly, it is desired that SA [redacted] maintain close liaison with the Automatic Electric Company to follow the progress of the development in this matter. It is not felt that further contact with the Bell System is warranted at this time.

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CKC:nll

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W.C. Sullivan _____
Tele. Room _____
Holloman _____
Gandy _____

MAIL ROOM ☐ TELETYPE UNIT ☐

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI

DATE: 11/21/58

FROM: SAC, CHICAGO (66-699)

ATTN: FBI LABORATORY
ELECTRICAL SECTIONSUBJECT: ANNOYANCE CALL CIRCUITb6
b7C

Enclosed herewith are two copies of a memorandum prepared by SA [] reflecting information on a developed "annoyance call circuit" by the Automatic Electric Company, North Lake, Illinois.

As is indicated in the memorandum and on the schematic diagrams attached thereto, this system was developed for use with the Strowger switch currently used in the automatic "step-by-step" telephone system. There is a possibility that some such system might work to the Bureau's advantage in some types of major case set up assuming there are similar telephone control circuits in the local telephone offices.

A check of the local Bell Telephone System in the Chicago area indicates that there is only one office using step-by-step selection and this is the "Official Three" office, the telephone company's own service. There are, however, many offices wherein the older type "panel" office equipment is used. It is not known whether or not this holding set-up will work with the "panel" control system.

The Laboratory is requested to advise the Chicago office whether this matter of holding control should be further pursued with the Bell System to see whether such would work with the old type panel set-up prevalent in many offices. It is to be noted that most of these offices are to be shortly converted to the crossbar system wherein a different type of holding control would prevent the operation of this annoyance call circuit.

Any information desired from Automatic Electric can be secured by SA [] through a personal contact which he has with that corporation and its development laboratory.

- ② - Bureau (Encls. 2)
1 - Chicago
PPS:LMA
(3)

EX - 124

REC-55

80-789-51

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NOV 24 1958
EX-124

2 Encls. Mailed
recovered in Lab
11-26-58
Let Chicago
12-26-58
C. L. K.

RECEIVED

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI (80-789)

DATE: 1-16-59 *cke**ATTN: FBI LABORATORY*

FROM : SAC, SPRINGFIELD (62-1423)

SUBJECT: *dy* TRACING OF TELEPHONE CALLS

Re Bulet, 11-4-58.

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b7c

[redacted] Manager, Illinois Bell Telephone Company, Springfield, was contacted January 12, 1959.

As previously stated, the Springfield Office of the company is a Step-By-Step operation. From my conversation with him I believe that our previously used terminology "mechanically operated switchboard" is not accurate. [redacted] pointed out that their proposed procedure had not actually been put into effect but has been worked out on paper and it merely relates to the changing of a complete block of 100 numbers to reverse normal procedure where the calling party controls the circuit. The block of 100 numbers would be rewired or altered to reverse this normal procedure and thereafter any calls coming in through this block would be controlled by the called party. The advantage of this procedure over other types of procedures is that it requires no action to hold the call other than the called party merely does not hang up the telephone.

In other types of tracing systems it is necessary for the called party to communicate with the telephone company in some way and for an employee of the company to lock in the call.

I am not certain as to whether the above described procedures are the same as already known to the Bureau or whether this represents a new type of system. I, therefore, took no steps to ascertain complete details, drawings, etc. In the event further information is desired, please advise.

No reply necessary - nothing new developed - this is done by reversing control circuit in called office etc.

2 - Bureau
1 - Springfield
RDG:VLS
(3)

E-102

REC-94

80-789-52

JAN 23 1959

1cc retained in Electronics Section etc.

66 JAN 27 1959

SEVEN

COMM. SECT.

SAC, Springfield (149-00), (62-1426)

February 19, 1959

Director, FBI (149-00)

71 by
**DESTRUCTION OF AIRCRAFT OR MOTOR VEHICLES -
FALSE REPORTS**

Reurlets 1-30-59 and 2-10-59 captioned as above.

In the past the operating telephone companies have traced telephone calls for the Bureau as a courtesy in major cases. To extend this practice to selected subscribers would, in all probability, require the filing of tariffs with the local or state rate regulating bodies, a practice which the operating companies want to avoid. It is felt, therefore that the Bureau should not act in a liaison capacity between carriers and the operating companies in effecting arrangements to trace telephone calls.

The system for holding calls, outlined in your letter 2-10-59, appears to be a modification of the system referred to in Bulet 11-4-58 to your office, captioned "Tracing Telephone Calls." It is not felt that the system in Bulet will tie up as many lines as the system outlined in your letter. To suggest the system referred to by the Bureau to your local contacts may place certain of the Bureau contacts in jeopardy, therefore, it is not deemed advisable to suggest to the local company that they explore the Annoyance Call circuit used by some Bell System operating companies.

The Step-by-Step dialing system is, for the most part, restricted to the less populated areas of the country. It follows therefore, that the system of tracing of calls as outlined in your letters has limited application.

The FBI Laboratory frequently discusses the problem of tracing calls with Bell Laboratories as well as officials of operating companies. To date no new systems for tracing telephone calls have been developed.

You should continue to bring to the Bureau's attention any new tracing techniques which the local operating companies in your territory develop.

Tolson *use*
Belmont *EKC:nll*
Mohr *7*
Nease
Parsons
Rosen
Tamm
Trotter
W.C. Sullivan
Tele. Room
Holloman
Gandy

Note: coordinated with Supervisor
Re Mission in #1,
Mr. Belmont (Attention: *[redacted]*)
80-789 (Tracing Telephone Calls)

53 MAR 13 1959

MAIL ROOM ☐ TELETYPE UNIT ☐

180-789-
NOT RECORDED
193 MAR 6 1959

Room 1257



ORIGINAL FILED IN 149-00-221

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Office Memorandum • UNITED STATES GOVERNMENT

To : Mr. Parsons

DATE: April 2, 1959

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b7C

FROM :

[redacted]

rem

SUBJECT:

0
TRACING OF TELEPHONE CALLS
 (Bufile 80-789)

Tolson ☒
 Belmont ☒
 DeLoach ☒
 McGuire ☒
 Mohr ☒
 Parsons ☒
 Rosen ☒
 Tamm ☒
 Trotter ☒
 W.C. Sullivan ☒
 Tele. Room ☒
 Holloman ☒
 Gandy ☒

Tracing of telephone calls continues to be an important investigative technique; however, the chances for success in tracing calls are becoming less and less with the rapid progress being made by operating telephone companies in the installation of newer, more modern and more automatically controlled telephone equipment. The Laboratory has continually maintained contact with telephone equipment manufacturers and with the operating telephone companies to derive understanding of the added technical problems introduced by these changes and to seek ideas and suggestions toward the solution of the call tracing problems introduced by these changes.

I pointed out in my memorandum of 3-5-59 that no call tracing techniques of which the Bureau was not already aware, were known to telephone equipment engineers at Kellogg Communications Division of International Telephone and Telegraph Corporation (KCDITT), Summit, Illinois, Automatic Electric Company, Northlake, Illinois, and the North Electric Company, Galion, Ohio. In discussion of the problem of tracing of telephone calls with engineers of KCDITT the concept of tracing calls by use of an electronic call tracer was discussed. Engineers of KCDITT participating in discussion of this idea were:

[redacted] Manager, Electronic Products Division;
 [redacted] Manager, Electronic Engineering Department, Electronic Products Division;
 [redacted] Supervisor of Standards, Procedures and Administration.

[redacted] was of the opinion that little future success in call tracing is to be met by following the present concept of "locking up" a call to permit visual and physical tracing of the circuit to be made because of serious limitations inherent in this approach. Major limitations, of which the Bureau is well aware, were cited (1) restricted application, primarily to step-by-step switching equipment which is used principally in less populated areas, (2) substantial amount of time required by telephone company employees to make actual visual and physical trace of circuit through telephone switching equipment, (3) ever increasing obstacles to successful call tracing imposed by development and installation of more completely automatic telephone equipment. In addition, the all-electronic exchanges of the future have no mechanical switching points where

RAM/nll (7)
 1 - Mr. Belmont
 1 - 149-00 Destruction of Aircraft or Motor Vehicles
 1 - 80-789, Dial Recording

REC-64

APR 22 1959

80-789-53
 SEARCHED
 INDEXED
 SERIALIZED
 FILED

MAY 25 1959

UNRECORDED COPY FILED IN 149-00

Memorandum to Mr. Parsons from [REDACTED]
TRACING OF TELEPHONE CALLS

the circuit path may be observed and physical tracing of a call will be impossible.

The answer to call tracing both on existing telephone equipment and on the telephone equipment of the future as seen by KCDITT engineers is an electronic call tracer which will function independently of the telephone equipment itself, and irrespectively of the type equipment on which it is used.

KCDITT has not developed such equipment but the engineers discussing this idea were unanimous in stating that from the technical standpoint the circuitry for such equipment would present no real problem. It was agreed among them that the Time-Division-Multiplex (TDM) system already proven and in use in some types of communication equipment could readily be adapted for such use. The scanner circuit of the TDM system would serve as the heart of the electronic call tracer. (TDM is one of several systems which may be used to transmit more than one message over the same circuit at the same time. This system transmits only a sample of the original signal in a definite relationship to time and then from the sample-time relationship reconstructs the original signal at the receiving end of the circuit.)

To make the TDM scanner function as a call tracer would require that an inaudible tone, at a level of about minus 35 decibels, be placed on the "called party's" telephone line. The TDM scanner connected to interested telephone lines or to all other lines in a telephone exchange would within about 1 second indicate the "calling party's" line by detecting the tone on it. Call tracing would not be limited to calls within the same exchange as the tone could be detected by scanners located in any exchange through which the call passes. The same approach could be used utilizing other type tone detectors, but the TDM was regarded to be best because of the speed with which the scanner could be made to detect and indicate the desired telephone line.

It was envisioned that in the development of an electronic call tracer of any type for practical application two major obstacles would be encountered:

1. Considerable engineering would be required to devise an acceptable system or method of attaching scanning equipment to the lines of a telephone central office. Failure to solve this problem would preclude the use of such equipment as portable equipment to be used as needed, and would necessitate permanent and costly installation of the equipment in all exchanges;
2. It would be necessary to gain the sanction of the operating telephone companies to install such equipment either on a temporary or permanent basis.

Memorandum to Mr. Parsons from [redacted]
TRACING OF TELEPHONE CALLS

[redacted] pointed out that no electronic call tracing equipment of any kind has been built by KCDITT and that none will be built unless there is some indication of a market for such equipment. It was pointed out to [redacted] that the Bureau does not underwrite research and developmental work in the form of outside contracts and that there was no assurance that even though such equipment became available that/would be acceptable for use by the Bureau.
it

The matter of call tracing in future all-electronic exchanges was also discussed with the KCDITT engineers who were of the opinion that electronic call tracing equipment for use strictly in connection with all-electronic exchanges could be greatly simplified if designed to utilize the memory circuits already incorporated in this type equipment. To take advantage of the existing circuitry, it would be necessary to incorporate call tracing circuits as in integral part of the exchange rather than later attempt to add this circuitry to the all-electronic exchanges.

The idea of electronic call tracing has been explored in the past by the Laboratory. It will continue to be discussed on subsequent contacts with Bell Laboratory scientists and telephone officials to develop any additional facts relating to the tracing of telephone calls.

ACTION:

None. For information only.

JW

4/14
Certainly if this
could be worked out
it would be of
extreme value to
Bureau in investigation
Q

SAC, Kansas City (149-0)

April 3, 1959

Director, FBI ~~(149-09)~~ (80-789)

JUNE

DESTRUCTION OF AIRCRAFT OR MOTOR VEHICLES

TRACING OF TELEPHONE CALLS

Reurlet 3-30-59 advising a method for tracing telephone calls by retaining the continuity of the talking circuit after completion of the conversation purportedly has been devised by the Bell Telephone system.

For your information, the Bureau has closely followed this matter with officials of the Bell system as well as with Bell Laboratory at Murray Hill, New Jersey. The degree to which a call may be successfully traced depends particularly on the type of equipment involved in the telephone company central office, the number of subscribers and other variables. Tracing of telephone calls represents an exact reversal of the normal engineering objective and the Bell engineers have evaluated the procedure of tracing telephone calls as generally not feasible from an engineering and economic standpoint since calls could only be traced consistently by expensive and comprehensive modification to existing telephone equipment throughout the country. The cost of these alterations is prohibitive.

This does not mean, however, that calls may not be traced by other means or in isolated instances by special circuit changes. You should, therefore, continue to be alert for any new tracing techniques developed or used successfully by local operating telephone companies in your area reporting same to the Bureau, attention FBI Laboratory.

In view of the above and since there has been recent contact with Bell Telephone officials regarding the tracing of telephone calls, it is not desired that New York consult telephone company contacts as suggested by relet.

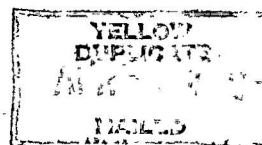
GWM:nli

8

1 - Mr. Rosen

1 - New York

Tolson _____
Belmont _____
Mohr _____
Nease _____
Parsons _____
Rosen _____
Tamm _____
Trotter _____
W.C. Sullivan _____
Tele. Room _____
Holloman _____
Gandy _____



160-789-
NOT RECORDED
170 APR 8 1959

NOTE: This matter is being vigorously followed by the Laboratory. It is our aim to insure that this matter is constantly considered and with the advent of new equipment, no opportunity to incorporate tracing circuits is overlooked.

50 APR 10 1959 TELETYPE UNIT ☐

ORIGINAL COPY FILED IN

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI

DATE: May 8, 1959

FROM : SAC, CHICAGO (66-4794)

ATTENTION: FBI ELECTRICAL SECTION

SUBJECT: ANONYANCE CALL "TRAP"
RESEARCH AND DEVELOPMENT

File in Tracing Calls 80-789ex

0 TRACING TELEPHONE CALLS
On Thursday, April 30, 1959, SAs [redacted]

and [redacted] arranged a meeting with [redacted] Supervisor in the Security Department of Illinois Bell Telephone Company to observe the operation of a "trap device" used in conjunction with crossbar V in the Bell Telephone systems. [redacted] Chief Special Agent arranged for the demonstration to be held at the crossbar Office located in Chicago Heights, Illinois.

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The Chicago Heights exchange of Illinois Bell Telephone has ~~been~~ a very recent installation of the crossbar system. This office is exclusively crossbar V and operates on a 24 hour a day basis but the hours between 12:00 midnight and the first shift in the day are, according to the plant supervisor, entirely automatic and unmanned. In connection with any use of the crossbar V trap device for any jobs whatsoever it would be necessary for telephone personnel to be available to interpret the card which is kicked out by a machine preparing cards similar to those used on the IBM Accounting Systems. The trap device used by the Bell System in the crossbar V offices has two aspects. One which is generally referred to as legal and the other as the illegal adaptation. This was brought out very pointedly to the agents' attention in view of the fact that the telephone company employees will and are instructed to refuse to use this illegal adaptation under any circumstances.

The legal "trap" is an electronic device which makes a search of the system to determine whether or not someone in the company has perhaps removed a "jumper" or else has left a faulty connection in the central office equipment.

- 2 - Bureau (RM)
- 1 - Chicago

EX-113

REC-70

11 MAY 1959

PPS:JEM

(3) NO 5

The info re "trap" has been previously reported by the Electronics section as "false trouble in crossbar offices". No reply necessary.
100 returned in Electronics section OK

SEVEN

The device is brought into play ordinarily when a subscriber complains of improper billing, at which time the trap device is placed on the subscriber's line to see whether or not all operations of the telephone and its connections function normally within the central office. Upon calls being placed from the subscriber's line, the electronic device will actually chart and code by punches on a large card the manner in which the call was placed showing the various connections, groups and terminals that were used on the individual call. A comparison of cards made from successful calls will lead to the determination of the point at which a fault exists. Thereafter the serviceman in the central office makes his correction of the system. The legal "trap" is actually a unit for tracing the calls signaling through the exchange operations.

The illegal adaptation of the "trap" device is a system whereby the same instrument is used to kick out a perforated card which shows in its coded form the telephone number of the calling party. Implementation ~~the device~~ is by the use of a "shoe" which has on it a resistance which is placed between the tip and the sleeve of the circuit within the central office. This "trouble" in the shoe is placed on the subscriber's line. In application which the Bureau would have interest, it would be placed upon the victim's telephone as it comes into the central office. The tracing device or trap, being connected to all the lines in general through the Automatic Meter Accounting) (AMA) would then be able to function on the line upon which trouble was placed. The placing of a call to the victim's telephone (the telephone which had trouble placed upon its installation) would by reason of this trouble shoe activate the mechanism in the trap device and throw out the indicator's card. This action is extremely rapid and takes place in a matter of milliseconds and no visual tracing of connectors, etc. is necessary nor can such be made in the crossbar V office. This card then interprets and shows the number of the calling party which of course then can be checked through the office records to show the location of the instrument installation.

The AMA system in the crossbar V offices is hooked up to each and every line which handles the exchange. Every

subscriber has his telephone pairs covered by the accounting system and incoming and outgoing calls and are thus recorded. Should the call have originated outside the instant office wherein the trap adaptation is used the only information which would be available from this unit would be the fact that the call came from a particular trunk pair coming from another office or perhaps on a Tandem trunk wherein there would be an inaccurate indicator of the direction of origin of the call. It is obvious from the above and the operation of the crossbar V tracing device adaptation that this "trap" will only work within the given crossbar office and cannot be asked to work when the call passes through more than one office.

It is also to be noted that in a large metropolitan area that many exchanges might be housed in one building with their dial prefix letters being separate to denote the different office ~~unit~~ despite the fact that they are in the same building, the tracing unit would necessarily treat as though the call had come from an entirely different and remote telephone office. The indication on the punch card would readily indicate that the call came from one of the other groups within the building and then a similar device or adaptation would have to be made to cover the possibility of a call being repeated over the same system. To eliminate the possibility of one of many trunks being used to connect the two offices the telephone company could resort to handling the calls between the offices with a very ~~small~~ number of trunks and hope that the elimination of the extra trunks would channelize the desired call through perhaps one of the trunk pairs which would be covered by the tracing device in the second exchange group.

This system will not work in any other crossbar office such as is available in most of the larger cities of the United States. The crossbar V offices of the Chicago area are not within Chicago proper but are rather located on the outskirts of Chicago handling calls being channelized at this large city. In the city of Chicago in particular, there is no crossbar V but only earlier developments in the crossbar system such as crossbar I or II which are not at all adaptable to this type of call tracing instrumentation.

Still further in connection with the Bureau's work, there is a possible adaptation of an automatic punch card system which might be used in the event of a suspect in an extortion case. Such would also be used within the crossbar V type offices and a card is produced to record the types of calls made from a certain instrument. With this instrument all calls are monitored for their destination number. In any system whereby AMA exists the telephone company can search calls to some of the suburbs on a unit basis. If the call is made to a suburb having the code designated signal which brings a call within a two unit designation, units are regularly chalked up on an accounting board. Calls of over \$.30 are ordinarily recorded and pointed out by this machine to show the number called and the number calling. Mr. STAHL indicated that this could be set up to reduce the cost level for any particular telephone being metered and that all the numbers called could be pointed and made a record tabulation by the machine. He indicated this might be in the classification of evidence against the individual who was making telephone calls of an undesirable nature. This system has been used to build up a record of the calls made by certain persons suspected by the telephone company and who will not admit upon interview that they made calls to certain numbers nor the duration of the calls. There has been no indication of the legality of the use of such a device but Mr. STAHL indicated that the company has used it on occasion to make a point on a stubborn or reluctant customer who insisted that he had done nothing wrong.

It is to be noted in the instance of the recording of numbers called from a certain instrument that such equipment could be used in the inter-office set up but not satisfactorily the intra-office operation.

It has been indicated that telephone company has previously in attempting to prove or disprove that a certain telephone was used to call various numbers from the dial system, has utilized a tape register similar to the tape registers of the type used by the fire alarm service. The use of such tape register is infrequent but according to information available from [redacted] is considered to be quite accurate in rendition of a tape setting forth the coded description of numbers called.

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b7c

As indicated earlier the instance wherein such call tracing equipment could be used in crossbar V it would ordinarily be necessary to arrange for telephone personnel to

CG 66-4794

be available to interpret the punched cards received by the machine and there is also the slight possibility that in the pressure of business when many calls are being placed that one or more lines having trouble upon it or some defect might call forth the attention of the tracing machine and have it pre-occupied at the time the call of interest came through. Arrangements would therefore have to be made in order that the line in interest be one of the very few lines which would be effected during the course of its application to Bureau work. Telephone personnel would have to be available to feed the necessary supply of cards into the perforating machine and also to give interpretations of the punched areas of the card.

Any future developments or utilization of this equipment within the Chicago area telephone systems will be followed very closely and the Bureau advised.

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. A. H. Belmont

DATE: May 14, 1959

b6
b7CFROM : SUBJECT: TRACING OF TELEPHONE CALLS

Tolson	_____
Belmont	_____
Mohr	_____
Nease	_____
Parsons	_____
Rosen	_____
Tamm	_____
Trotter	_____
W.C. Sullivan	_____
Tele. Room	_____
Holloman	_____
Gandy	_____

The memorandum on this subject 4-2-49 from to Mr. Parsons indicates that the Laboratory is maintaining close contact with telephone equipment manufacturers and operating telephone companies regarding the problem of tracing telephone calls and that, while the installations of more modern equipment reduces the possibility of tracing calls through present methods, there is the possibility of the development of electronic equipment that may make it possible to trace such calls in the future.

As the Laboratory is aware, the tracing of telephone calls is of extreme importance in the investigation of false report cases under the Destruction of Aircraft and Motor Vehicles Statute. The vast majority of the false reports are made by telephone. Despite intensive investigation, only a limited number of such have been identified through normal investigative methods. A workable method for tracing telephone calls would greatly enhance the possibility of solutions in these investigations. The identification and prosecution of individuals making such false reports appears to be the best method of eliminating problems presented by such false reports.

RECOMMENDATION:

It is recommended that this memorandum be forwarded to the FBI Laboratory to reflect our appreciation of the continued close attention the Laboratory has given this problem and our continued interest from an investigative standpoint.

REC- 15

80-789-55

23 MAY 20 1959

GWH:pwf

(5)

1 - Mr. Belmont

1 -
1 -
1 - 726 MAY 14 1959
2 MAY 22 1959

EX-113

Severin

SAC, New York

Attention: SA J. J. Hill

August 27, 1959

REC-36

Director, FBI (80-789) - 56

TRACING OF TELEPHONE CALLS

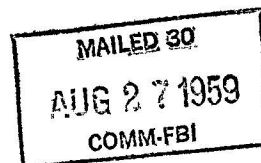
It is desired that you arrange, through established high-level contacts, for a Laboratory Supervisor to discuss the investigative aspects of the following subjects with engineers handling the listed projects in Bell Telephone Laboratories, New York City:

Tracing telephone calls
Electronic Central Office Switching Equipment
Pulse dialing in local exchanges
New developments in subscriber telephone instruments
Line Concentrators
Speech analysis equipment
Any other developments which offer investigative possibilities

In addition, arrangements should be made for the Supervisor to conduct an inquiry at Dennison and Sons, 35-37 36th Street, Long Island City, New York, to determine whether or not paper used for certain trip tickets for Eastern Airlines can be used as a recording media for the 6 AR Dial Pulse Recorder.

In arranging for these interviews, sufficient time should be allowed to afford proper scheduling of this trip by the Bureau.

Your reply should be addressed to the attention of the FBI Laboratory.



CKC:pic (5)

NOTE: See memo [redacted] to Mr. Parsons dated 8/5/59, outlining the details and purpose of this trip.

Bureau indices negative.

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Tolson _____
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McGuire _____
Mohr _____
Parsons _____
Rosen _____
Tamm _____
Trotter _____
W.C. Sullivan _____
Tele. Room _____
Holloman _____
Gandy _____

MAIL ROOM ☐ TELETYPE UNIT ☐

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Parsons

DATE: 8/5/59

b6
b7C

FROM :

[Redacted]

SUBJECT:

TRACING OF TELEPHONE CALLS
(Bufile 80-789)

Tolson	_____
Belmont	_____
DeLoach	_____
McGuire	_____
Mohr	_____
Parsons	_____
Rosen	_____
Tamm	_____
Trotter	_____
W.C. Sullivan	_____
Tele. Room	_____
Holloman	_____
Gandy	_____

The above-captioned matter continues to be pertinent in various types of investigative cases involving bombing and threats of bombings. The Laboratory has continued to remain in close contact with telephone company officials and Bell Laboratories scientists in connection with this and other items of mutual interest.

As you know, in the past, an exhaustive study of captioned matter was undertaken by [Redacted] of Bell Laboratories, and his staff, to determine the nature of the technical obstacles involved in the over-all problem of tracing telephone calls. After exhaustive scientific study, [Redacted] representatives brought a report to the Bureau which indicated that, in general, calls could only be traced successfully and consistently by expensive and comprehensive modifications to existing telephone equipment in the various telephone exchanges. Additional ideas were presented to the Bell Laboratories engineers by Laboratory personnel for evaluation against the Bell System Engineering. The Bureau has been advised in subsequent contacts with the Bell Laboratories that the tracing of telephone calls represents an exact reversal of their normal engineering objective. Accordingly, Bell engineers have evaluated the procedure of tracing telephone calls as generally not feasible from the engineering standpoint. In addition, it was pointed out that satisfactorily engineered alterations to existing exchanges would entail a prohibitive cost to the Company. Close local liaison with high telephone company contacts has confirmed in general the findings of the Bell scientific people.

In spite of the over-all conflict of engineering objectives, Bell representatives have agreed to keep the tracing problem before their Equipment Planning Section to insure that no possibilities for tracing calls will be overlooked in planning for future Bell Systems. The matter is certainly not considered closed.

The Bureau has recently received reports from the field that there have been some instances where telephone companies have rewired some portions of older switching facilities to transfer the control of the talking circuit from calling to certain called telephone subscribers. It was reported that some telephone

1 - Mr. Belmont

1 - 149-00 (Destruction of Aircraft or Motor Vehicles -- False Report)

1 - 80-769 (Dial Recording) 23 SEP 1 1959

CKC:nlk
(8)

UNRECORDED COPY FILED IN 149-00 80-769

Memorandum to Mr. Parsons from [REDACTED]
TRACING OF TELEPHONE CALLS
80-789

company employees believe that the same technique might be applied to the newer crossbar systems. The matter of called party supervision is not new in the older switching systems. The Laboratory has been familiar with this technique since our initial interest in the tracing of telephone calls with this system.

Bell System engineers are presently in the process of developing an all-electronic dial exchange switching system for future use. The matter of tracing calls should again be brought to their attention at this particular time so that the Bureau can be assured that the telephone company scientists and engineer's will not overlook any possibilities to incorporate tracing circuitry in the electronic switching equipment. At this time, the whole matter of tracing calls should again be reviewed with Bell engineers with a view of reviving their thinking along this line, demonstrating the Bureau's keen interest in any developments which would prove to be of investigative value and specifically reviewing the modifications mentioned in the field.

Recently, there has been some progress made in the miniaturization of subscriber carrier circuits. These circuits are of interest to the Bureau as a possible use for microphone surveillance installations in areas where it is not possible to change visible wires by the addition of the extra wires required for microphone coverage egress. This matter should also be discussed with engineers specializing in this phase of telephony at the Bell Laboratories.

This contact with Bell Laboratories scientists, due to its highly technical nature, can best be handled by Laboratory personnel rather than through field Agents.

In addition, in our never-ending search to improve field investigative equipment, a lead has been developed relative to the marking media used in dial recorder operations. Dennison and Sons, 35 - 37 36th Street, Long Island City, New York, produces a certain trip ticket for Eastern Airlines having a red marker backing which may provide an improvement in the marking procedure of the 6AR dial recorder. Bureau indices are negative with regard to Dennison and Company. While in the New York area in connection with the Bell Laboratories contact, this lead can be economically covered by the Laboratory Supervisor.

Memorandum to Mr. Parsons from
TRACING OF TELEPHONE CALLS
80-789

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RECOMMENDATIONS

That a Laboratory Supervisor recontact Bell Laboratories in New York in connection with the telephone tracing problem in general and specifically with regard to their position concerning the modifications mentioned above. Additionally, while in the area, this employee can handle the lead regarding the Dennison and Sons Company paper which is under consideration for field dial recorder marking purposes.

July
OK
P

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI (80-789)
ATT: FBI LABORATORY - SA [redacted]

DATE: 9/15/59

b6
b7C

FROM : SAC, NEW YORK

SUBJECT: TRACING OF TELEPHONE CALLS

ReBulet 8/27/59.

[redacted] in charge of Engineering, Bell Laboratories, 463 West Street, NYC, NY, introduced Supervisor JAMES J. HILL to [redacted]

[redacted] Bell Laboratories, Murray Hill, New Jersey. Through [redacted] arrangements have been made for representatives of the Laboratory and/or the Bureau to visit Bell Laboratories, Murray Hill, New Jersey, on 10/16/59. [redacted] suggested that the agents plan to be at Murray Hill about 9:30 a.m. at which time he will have his personnel assembled and available to discuss the subject matter set forth in the above referenced letter. [redacted] stated that the before mentioned date was most convenient to him, inasmuch as he would not have all of his personnel available prior to that time on account of vacation schedules.

[redacted] Dennison & Son, 35-37 36th Street, LIC, NY, advised that their company does process and have available for examination all of the various types of paper that are used in airline tickets at their LIC address. He stated that it would be agreeable with him to discuss these products together with their physical properties with members of the FBI Laboratory on either the afternoon of 10/16/59 or the morning of 10/17/59. He stated that on either occasion, the interview could be conducted with either himself or [redacted] of the company.

Supervisor JAMES J. HILL advised [redacted] that on 10/16/59, he would call [redacted] and firm up the appointment as to the afternoon of 10/16/59 or the morning of 10/17/59.

- 3 - Bureau (80-789)
1 - FBI LABORATORY - SA [redacted]
1 - New York

5744 map
(4) SEP 25 1959

REC-18

4 SEP 26 1959

b7D

1cc retained in [redacted] Section
No info necessary at this time ex

9/18/59

EXP. PROC.
SEP 16 1959

80-789-57

SEVEN

SAC, New York
Attention: SA J. J. Hill

October 12, 1959

Director, FBI (80-789)

WJD
TRACING OF TELEPHONE CALLS

Reurlet 9/15/59, captioned as above.

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Supervisor [redacted] of the FBI Laboratory will arrive LaGuardia Airport, New York, via American Airlines flight 252, at 9:25 A. M., October 15, 1959, to conduct interviews at Dennison & Son, Long Island City, New York, and Bell Telephone Laboratories. In view of the fact that the interview at Dennison & Son is scheduled for October 15, you should arrange for the Agent who is to accompany [redacted] to meet him at the airport.

*note: ORIGINAL LETTER 9-15-59
PREVIOUSLY PLACED IN FILE.
perm*

OK
CKC:dan (5)

dan
mm
perm

53 OCT 15 1959

MAIL ROOM ☒ TELETYPE UNIT ☐

2
REC 21
80-789-58

OCT 13 1959

Tolson _____
Belmont _____
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McGuire _____
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Tamm _____
Trotter _____
W.C. Sullivan _____
Tele. Room _____
Holloman _____
Gandy _____

80-789-59

October 28, 1959

[Redacted]
Bell Telephone Laboratories, Incorporated
463 West Street
New York, New York

Dear [Redacted]

I have been advised of the splendid conference you arranged for Supervisor [Redacted] of the FBI Laboratory and Special Agent J. J. Hill of our New York Field Office at your Laboratories in Murray Hill, New Jersey, on October 16, 1959. The matters discussed at this conference are of vital importance to this Bureau.

The assistance rendered by you and members of your staff has been of great value and I know that it will continue to help us materially in the handling of our investigative responsibilities.

All of us in the FBI are grateful to you and members of your staff for the help and splendid cooperation afforded to us. We wish that you would convey to Messrs. [Redacted]

[Redacted]
my appreciation for their interest in these matters.

Please feel free to call on us when we can be of service to you.

Sincerely yours,
J. Edgar Hoover

1 - FBI, New York

CKC:nll/nw (6)

NOTE: Bureau indices contain no derogatory information. See memorandum [Redacted] to D. J. Parsons re: Tracing telephone calls dated 10/22/59.

CKC:BAW

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W.C. Sullivan _____
Tele. Room _____
Holloman _____
Gandy _____

Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Parsons

DATE: October 22, 1959

FROM :

SUBJECT: Tracing Telephone Calls
Technical Surveillance Equipment

Tolson ☒
 Belmont ☒
 DeLoach ☒
 McGuire ☒
 Mohr ☒
 Parsons ☒
 Rosen ☒
 Sullivan ☒
 Tamm ☒
 Trotter ☒
 Tele. Room ☒
 Holloman ☒
 Gandy ☒

Supervisor [redacted] of the Laboratory and Special Agent James J. Hill of the New York Field Office conferred with personnel of Bell Telephone Laboratories, Inc., on October 16, 1959, to determine if there have been new developments in the telephone industry which will assist in Bureau investigations. Particular attention was given to tracing telephone calls, new telephone equipment and speech intelligibility problems.

The conference, which lasted for more than seven hours, was productive. We were advised that call tracing facilities are being included in the design of new Electronic Central Office Switching Equipment and that a system for assisting in the trace of a call in exchanges employing the new all-relay dial equipment has been approved. The latter technique is not new; however, acceptance of its use is a recent change in policy. The field will be advised of this change.

We were advised of new subscriber facilities which will be made available to Bell System subscribers over the next seven years. Some of the conveniences included in these new facilities are as follows:

Repertoire or Abbreviated Dialing - The subscriber will record the telephone numbers of frequently called individuals, which recording is retained by the telephone company. The subscriber dials a two-digit number assigned to each person listed on his record, the equipment in the exchange will dial the complete number. This includes direct distance dial numbers. We will have to obtain the record from company to identify called numbers.

All Digit Dialing - No longer will exchanges be given alphabetical listings. This will not change our surveillance operations.

80-789

1 - 80-769 (Dial Recorder Development)

OKC:baw law

Clef(6)

80-789-59

OCT 30 1959

REC-37
EX-109

SEVEN

OCT 30 1959

Memorandum to Mr. Parsons

Re: Tracing Telephone Calls
Technical Surveillance Equipment

80-789

Pulse Dialing - Buttons are depressed to establish connection to called station instead of operating the present dial wheel. This will be available to subscribers next year. Our surveillance equipment will have to be modified to handle this type of dialing. It is estimated that conversion units will cost \$1,100.00 each.

"Personal Signaling" or "Subscriber Radio Paging" - Beginning in the early part of next year the Bell System will experiment with a radio paging system. A call directed to a particular subscriber will make an audible sound on his set to indicate that he is wanted on the telephone. To complete the call he will have to call a prearranged telephone number. This radio receiving set is small enough to fit in a coat or shirt pocket. It will not respond to calls broadcast to other subscribers.

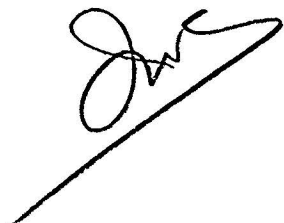
These are but a few of the interesting developments revealed at his conference. Complete technical details of all matters discussed will be the subject of a technical report on the conference.

In addition to the conference at Bell Telephone Laboratories, Corbett made inquiries at Dennison & Son, Long Island City, New York, and at the Mittag-Vogel division of Burroughs Corporation, Park Ridge, New Jersey, where new paper, not yet on the market, was discussed. This paper appears ideal for dial pulse recording media as it does not require ink for marking and there is no displacement nor scraping of the coating. The mark is brought up as a result of "molecular displacement which causes an optical refraction." We will explore this matter further and make recommendations concerning field use in the near future.

This trip, in my opinion, proved quite profitable from an investigative standpoint. We are now in a position to advise the sound-trained Agents the details of new telephone equipment they can expect to encounter in the next few years.

Technical details of the discussions will be the subject of a technical memorandum.

Action: None, for informative purposes.



Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. D. J. Parsons

DATE: November 9, 1959

FROM :

[Redacted]

b6

b7C

SUBJECT: TRACING OF TELEPHONE CALLS

Tolson _____
 Belmont _____
 DeLoach _____
 McGuire _____
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 W.C. Sullivan _____
 Tele. Room _____
 Holloman _____
 Gandy _____

SYNOPSIS:

Captioned matter was discussed with engineers of the Bell Telephone Laboratories with a view of developing new tracing techniques and also to again remind them of the Bureau's continued interest in this valuable investigative aid in cases involving bombing and threats of bombing. A summary of the matters discussed was reported in my memorandum dated 10/22/59.

Annoyance calls are becoming a real problem with the operating telephone companies and it is anticipated that an increase in this activity will result with the extended use of subscriber direct distance dialing. Bell studies have shown that it is not practicable either from an engineering standpoint or from an investment policy to modify existing exchanges to permit tracing of calls. The new electronic switching exchanges will have electronic memory circuits that will facilitate the tracing of calls. These exchanges will not be available until some time in the future. During the interim, the company expects to continue production of existing equipment, which equipment has a life expectancy of more than twenty years.

Known technical aids for tracing calls have been previously called to attention of the field. We will explore one new technique which may have possibilities as a technical aid in tracing calls. This technique will require exploration to determine the investigative possibilities. It employs a simplex circuit and "shoe" to pick up the superimposed signal. Details are set out herein.

EX 109 REC- 98 80-789-60

We will continue to look for new and better means of tracing telephone calls. As they are developed, we will report them.

NOV 23 1959

RECOMMENDATION :

It is recommended that we explore the possibility of superimposing a tone on a telephone line with a view of developing a technical aid for tracing telephone calls.

CKC:PCC (4)

80-789

57 NOV 25 1959

Memorandum to Mr. Parsons
RE: TRACING OF TELEPHONE CALLS
80-789

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DETAILS :

As previously reported in my memorandum dated 10/22/59, Supervisor [] discussed captioned matter with engineers of the Bell Telephone Laboratories with a view of developing new tracing techniques and also to again remind them of the Bureau's continued interest in this valuable investigative aid in cases involving bombing and threats of bombing. This matter was discussed in detail with Messrs. [] at [] the Murray Hill Laboratories of the Bell Telephone Laboratories, Inc. These engineers represent the "best brains" in the telephone development industry today.

Several possibilities of tracing calls were discussed. While there appears to be no proven techniques in this field which have not been previously reported, we have gotten the acceptance of a technique which we have previously advised the sound-trained agents that can be used under certain conditions.

We were advised by [] Chief Engineer, Electronic Switching Systems, that annoyance calls are becoming a real problem for the operating companies and that they anticipate an increase in this activity with the extended use of subscriber direct distance dialing and the extended area dialing facilities being provided by operating companies. Laboratories studies have shown that it is not practicable both from an engineering standpoint and from an investment point of view to install tracing facilities in existing exchanges. These exchanges were designed prior to the current wave of annoyance calls and to modify them at this time would be a mammoth operation not only to develop new circuits, but also to integrate the new circuits into existing facilities. It is not possible to estimate the ultimate cost for such a project.

The Laboratories have determined that the new Electronic Switching Equipment presently under development for central office switching can be easily adapted to handle the problem of annoyance calls through the use of memory circuits. It is the intent of the design engineers to incorporate tracing features in the new Electronic Switching Equipment exchange

Memorandum to Mr. Parsons
RE: TRACING OF TELEPHONE CALLS
80-789

circuits. While an experimental model of this new type of exchange switching equipment will be put into operation next year, it will be several years before this development project will be made available to operating companies. During the interim, the Bell System will continue to manufacture the conventional Step-by-Step and all relay systems for new telephone central office installations. This conventional equipment has a life expectancy of more than twenty years.

There follows a technical report on the discussion concerning tracing of telephone calls.

It was reported that a Western Electric Tool number 351E had been modified so that it could be used to aid in "identifying the calling subscriber on complaints of annoyance" in number 1 and number 5 Crossbar offices. These two types of central office equipment are all relay switching systems installed in the Bell System central offices during the past few years. The tool is modified to put a 5,000 ohm "tip ground" on the called subscriber's line to cause the trouble recorder or terminating trouble indicator to produce a trouble indicator which will supply the "necessary information to identify the calling party if the call originated in the same office" or should the call originate in another office the "incoming trunk can be identified."

On the surface this modified tool appears to be the answer to our tracing problems in the newer type central offices. There are, however, certain limitations to this method all of which have been previously reported in detail in my memorandum dated 7/23/57, captioned "Tracing of Telephone Calls." The principal limitation to this method is the possibility that the recording equipment required to report the trouble may be busy testing the line of another subscriber at the instant the pertinent call is received, in this event, the pertinent call would by-pass the recording equipment and be routed directly to the subscriber.

The acceptance of this modified tool is certainly a step in the right direction in this matter of tracing calls in these types of switching systems. Heretofore there has been no accepted practice for the modification to put

Memorandum to Mr. Parsons
RE: TRACING OF TELEPHONE CALLS
80-789

a "false trouble" on the called subscriber's line. The sound-trained Agents will be informed of the use of the modified tool instead of strapping the resistor between the tip side of a line and a ground terminal.

The engineers suggested that we explore the possibilities of using a "magic wand" search aid to determine the source of the incoming call. They suggested that we try to impress a ringing voltage on the called subscriber's telephone line using a simplex feed of a ringing voltage, which voltage is shifted approximately 10 or 20 degrees. This ringing voltage would be picked off through the use of search equipment, such as the "magic wand," in the part of the central office where the call is "most likely to be routed." This technique, if it will work satisfactorily, will permit the central office switchman to go directly to incoming trunks to identify the originating central office trunk being used to handle the call. It is theoretically possible that the ringing voltage would feed through carrier trunks, a system which impresses several conversations on a single wire in order to conserve the number of telephone wires necessary to handle a large volume of traffic between two central offices. If the tone will feed through carrier it will not be necessary for the terminating office to identify the particular trunk pair over which the pertinent call is routed as this can be picked up faster by the originating office than the terminating office.

The ringing voltage should be shifted 10 or 20 degrees so that it can be differentiated from induced ringing voltage frequently picked up inductively on telephone lines. The ringing frequency was selected for two reasons, (a) because any unbalance on the conversation network will cause a leakage of the impressed voltage onto the subscribers circuit; being ringing voltage it would sound like induced ringing; and (b) the ringing voltage or frequency should pass through carrier circuits without an appreciable loss and it is easily identifiable without elaborate detecting equipment.

Memorandum to Mr. Parsons
RE: TRACING OF TELEPHONE CALLS
80-789

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This system of tracing calls will have to be explored in order to determine the extent to which it can be applied. We will submit a detailed report upon completion of the tests. We were informed by [redacted] that he will make a "shoe" available to us when we have progressed to the point that central office search is feasible.

It was pointed out that in the Step-by-Step and number 5 Crossbar offices a "hay-wire" arrangement can be made to hold up a trunk group until a number can be traced back to the originating office. This arrangement will paralyze a group of incoming trunks and while the companies provide alternate routing for their trunking facilities, these one hundred subscribers would not be able to make outgoing nor receive telephone calls until the call has been traced back to the point of origin. This is a condition which the Bureau should not be a party to on the premise that one or more of these one hundred subscribers may want to make an emergency telephone call during the trace period.

Operating companies make a practice of "blocking out" as many trunks as possible when they know the approximate time a call is to be received over an interested line. This enables them to narrow their search possibilities to a relatively few lines and at the same time control the routing, to a certain extent, of the call through exchange equipment. Even with elaborate planning the call must be visually checked through at each connecting point and in addition, must be verified through monitoring techniques to be certain that the trace is accurate. A characteristic tone, inaudible to the subscriber, superimposed upon the line will reduce the number of check points that will have to be visually examined in detail and therefore expedite the trace time in a particular office.

We will continue to look for new and better means of tracing telephone calls. As they are developed we will keep you advised.

SAC, Los Angeles (66-119)

March 18, 1960

REC-71

Director, FBI (80-789) - 61

TELEPHONE CALL TRACING DEVICE

Reurlet dated 3-7-60, captioned as above.

It is desired that you confidentially contact the Tele-Signal Corporation, 916-18 Exposition Boulevard, Los Angeles, California, Telephone GR 8-3066, to obtain details of the portable device that can be attached to a subscriber's telephone and the device that is installed in the telephone central office for assistance in tracing a telephone call. You should assure the contact that any information which is made available will be treated confidentially by the Bureau. Too, you should inform the contact of the confidential nature of this inquiry and that this inquiry does not constitute an endorsement of his product.

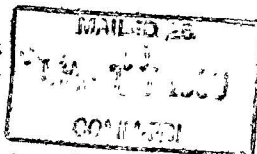
Your inquiry should also include information concerning alarm systems produced by this company. Available literature should be included with your reply.

Your reply should be directed to the attention of the FBI Laboratory.

NOTE: Bureau indices negative re Tele-Signal Corporation.

CKC/IWC:pcc (5) *PCJ*

Tolson _____
Mohr _____
Parsons _____
Belmont _____
Callahan _____
DeLoach _____
Malone _____
McGuire _____
Rosen _____
Tamm _____
Trotter _____
W.C. Sullivan _____
Tele. Room _____
Ingram _____
Gandy _____



MAR 22 1960

MAIL ROOM ☒ TELETYPE UNIT ☐

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI

DATE: 3/7/60

FROM: SAC, LOS ANGELES (66-119)

ATTN: FBI LABORATORY
ELECTRONICS DIVISION

SUBJECT: TELEPHONE CALL TRACING DEVICE

TRACING TELEPHONE CALLS

On 2/24/60, Captain ANTHONY A. RUIZ, Los Angeles Police Department, advised SA MANUEL M. LIODAS that he had recently visited the offices of the Tele-Signal Corporation, 916-18 Exposition Boulevard, Los Angeles, California, telephone GR 8-3066, which company manufactures Security Systems, in order to see a demonstration of a new burglar alarm system.

Captain RUIZ advised that following the demonstration of the new burglar alarms, he was shown a newly invented device for the tracing of telephone calls. RUIZ advised that a portable device is attached to the telephone of a subscriber and another attachment is made on the telephone exchange switchboard and thereafter the subscriber can have any call traced by pushing a switch or button on the device attached to his telephone. RUIZ stated that when the phone subscriber pushes the switch or button on the device attached to his telephone, a signal is lighted on the telephone company switchboard and the call can be instantly traced through the caller hangs up immediately.

It is noted that a device such as this could be of value in such cases as extortion, kidnapping, bombing threats, etc., or any other cases necessitating the tracing of a phone call.

No contact is being made with the Tele-Signal Corporation by the Los Angeles Office.

The above is furnished for the information of the Electronics Section for whatever use they may desire to make of it.

③ - Bureau
1 - Los Angeles

MML:mgj
(4)

REC-71 80-789-101
24 MAR 18 1960

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UNITED STATES GOVERNMENT

Memorandum

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 W. Sullivan _____
 Tele. Room _____
 Ingram _____
 Gandy _____

TO : Mr. [redacted]

DATE: April 8, 1960

FROM : I. W. Conrad [redacted]

SUBJECT: VISIT TO BELL LABORATORIES

On April 7, 1960, I visited Bell Laboratories, Murray Hill, New Jersey, toured the major portions of their facilities and conferred at length with [redacted] in charge of research, and other officials concerning problems of mutual interest.

Although no new basic scientific developments not already known to us were found, the visit was well worth while, primarily from the standpoint of a continuing close technical liaison with such outstanding groups in order to insure that the Bureau continues to receive the benefit of top level outside research and development. In addition, while talking directly with their various individual experts, several minor "tricks of the trade" relating to analytical procedures and the use of various items of technical equipment were exchanged to our mutual advantage.

I took specific occasion again to explore thoroughly the problem of tracing telephone calls and identifying voices in such calls as related to the hoax bomb scare problem. Vice President [redacted] with whom we previously have gone over the tracing problem, was available and participated in this phase of the discussion. Both [redacted] are acutely aware of our vital interest in this matter, and both advised that all systems being designed for future installation would incorporate provisions for tracing such calls, and indeed some of the more recently installed equipment will permit such tracing to a limited extent. However, thus far, they have not been able to come up with any additional possibilities for handling the tracing of calls through much of the older existing equipment which is in service throughout the country. Although not optimistic about an early solution to this phase of the problem, they are continuing to devote concentrated attention and effort to it.

With regard to the identification of voices, they feel they are making some progress although a solution permitting definite identification of a recorded voice with an individual still appears to be at least a few years in the future.

We are continuing to follow vigorously on both the telephone tracing and the voice identification problems and will maintain close

IWC:upp (4)

80-289
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 145 APR 15 1960
 11 APR 14 1960

62 APR 20 1960

ORIGINAL COPY FILED IN 94-53612

Memorandum to Mr. Tamm
Re: Visit to Bell Laboratories

continuing liaison with Bell Laboratories as well as other
authorities in the field to press for the earliest possible
solution to these problems.

ACTION: None. For information.

JTB
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4/11

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SP ✓

UNITED STATES

Memorandum

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Tolson _____
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 Tamm _____
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 W.C. Sullivan _____
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 Ingram _____
 Gandy _____

TO : MR. TAMM

DATE: April 4, 1960

FROM : Mr. Conrad

SUBJECT: TRACING OF ANONYMOUS TELEPHONE CALLS

Supervisor James Hill, New York Office, called me this afternoon to advise that [] an engineer of Bell Laboratories with whom we have conferred in the past on the subject of tracing telephone calls, had notified Hill that within the next few days a conference was scheduled between officials of Bell Laboratories and officials of the New York City Telephone Company (at the request of the New York City Telephone Company) to consider the matter of tracing telephone calls and identifying the voices of anonymous callers. [] stated that as we knew from our earlier conferences with Bell Laboratories, there has been no satisfactory method for tracing telephone calls or identifying the voices of suspects, although telephone calls can be traced on occasion under certain favorable conditions.

[] was calling primarily to advise us of the forthcoming conference as a matter of interest, and indicated that he would keep the Bureau advised of any developments that grew out of the conference. I told Hill to reiterate our interest to [] and to follow the matter very closely.

We certainly are interested.

As you know, in addition to our own research on these problems we have explored the subject on a continuing basis with Bell Laboratories and others for many years, and we are continuing to follow the matter very vigorously. Bell Laboratories, as the primary research and development arm of the telephone industry, is one of the leading authorities in the field. I and others of the Laboratory staff have personally conferred with top Bell Laboratories men on several recent occasions, and at the present time, I am tentatively scheduled to visit [] Vice-President in Charge of Research at Bell Laboratories, on April 7, at which time these subjects, as well as others of interest to us, will be again discussed.

ACTION:

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145 APR 18 1960

None.....for information only.

APR 18 1960

IWC:mn

(2)

4/59

This is most important

7-QT

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67 APR 19 1960

UNITED STATES GOVERNMENT

Memorandum

TO: Mr. Tamm

DATE:

4/19/60

FROM: [REDACTED] *TEW*SUBJECT: TRACING TELEPHONE CALLS
(BUFILE 80-789)

Tolson _____
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 Parsons _____
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 Callahan _____
 DeLoach _____
 Malone _____
 McGuire _____
 Rosen _____
 Tamm _____
 Trotter _____
 W.C. Sullivan _____
 Tele. Room _____
 Ingram _____
 Gandy _____
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 b7C

By letter dated 4/6/60, captioned "Crimdel - CRS," the SAC at Salt Lake City reported a device, patented by Lawrence Lea, a New York electrician, to trace and record telephone calls. This is not new information to the Electronics Section. b6
b7C

Patent number 2,900,449 was issued to [REDACTED] Bronx, New York, on August 8, 1959, for a "Telephone Call Tracing and Recording Device." Briefly, this patent covers a method of alerting a "central station" (manual telephone operator's position), a microphone to announce calls "to be traced to an operator who will vocally announce the name and location of the calling party." A tape recorder with a dual record head is used to provide one sound track for the instructions to the "central station" operator and the reply from the operator. The second record head provides a sound track for recording the conversation of the call to be traced.

This patent does not reveal an art that has not been known to the Electronics Section for several years. The patent obviously does not take into consideration modern dial equipment because no effort was made to trace a call beyond an operator, which in the terms of the patent must be a manually switched call. In 1951, the Electronics Section pioneered the dual recording head development through our contacts in the recording industry. We employed the second sound track for voice identification soon after initial delivery of the units. The passing of information to a call tracing team over a loud speaker system has been accepted practice in the telephone industry for several decades; this is one of the claims for instant patent. 63-4296-296

In view of the fact reference patent reveals nothing of value or new to investigative matters, it will be given no further consideration. This is, therefore, being submitted for record purposes. pa

ACTION: For information.

1 - Bufile 63-4296 (Crimdel - CRS)

REC-76

18 APR 20 1960

100
 CKG: [REDACTED] (6)
 25 APR 1960 *735*

CENTRAL
[Signature]

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SAC, Los Angeles (66-119)

April 19, 1960

Director, FBI (80-789) - 63

REC-12
EX-105
TELEPHONE CALL TRACING DEVICE

Reurlet 4-6-60, in captioned matter.

It is desired that you recontact [redacted] Tele-Signal, 11618 Exposition Boulevard, Los Angeles, to determine the following:

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- (1) Is the equipment required to trace the call fixed (made a permanent part of a dial exchange) or portable?
- (2) What is the amount and size of the equipment used in the central office or exchange?
- (3) On what types of central office switching systems can this equipment be used to trace a call, i. e. Panel, Crossbar, Step-by-Step, All Relay and X-Y Systems?
- (4) What prevents the 7 kc/s transmitter from feeding audible sounds into calling party's instrument? It is realized that most telephone instruments cut off rather sharply between 3,500 to 4,000 cycles per second; however, 7 kc/s is within the hearing range of most individuals and, therefore, it is within the realm of possibility that the calling party will hear this tone when it is superimposed on the subscriber's line.
- (5) What is General Telephone Company's evaluation of this equipment?
- (6) Are there any exchanges or central offices in close proximity to Washington, D. C., in which this system has been installed and, if so, may it be examined by Laboratory personnel?

MAILED 39

APR 20 1960

COMM-FBI

In addition to the above-listed information, it is desired that you request the complete details of the Tele-Signal Ultrasonic Alarm system exclusive of the telephone line feature. It will be interesting to note how the 6 to 10 kc/s band can be operated over the subscriber's telephone pair without there being an audible noise at the time the oscillator is keyed.

Your reply should be directed to the attention of the Electronics Section, FBI Laboratory.

MAIL ROOM ☒ TELETYPE UNIT ☐

CKC:pcc (5)

NOTE: Bureau indices negative re Tele-Signal and Glynn Courcy.

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI (80-789)

DATE: 4/6/60

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b7C

FROM : SAC, LOS ANGELES (66-119)

SUBJECT: TRACING TELEPHONE CALLS
TELEPHONE CALL TRACING DEVICE

Re Bureau letter to Los Angeles dated 3/18/60.

On 3/30/60 [redacted]

Tele-Signal Corporation, 11618 Exposition Boulevard, Los Angeles, California, advised that the Tele-Signal Corporation is a subsidiary of Koiled Kords, Incorporated, New Haven 14, Connecticut, which in turn is a wholly owned subsidiary of Whitney Blake, New Haven 14, Connecticut.

Concerning the telephone call tracing device mentioned in referenced letter, [redacted] stated that he has no literature concerning the device, but that he would prepare a written description and make it available at a later date.

On 4/4/60 [redacted] made available the enclosed description of Tele-Signal Call Trace Equipment, In addition, he made available the enclosed brochure which describes other alarm and signaling systems manufactured by his company.

[redacted] stated that they have a working model of the telephone call tracing equipment and that he would be happy to demonstrate to Bureau personnel either in his laboratory or actually installed in the central office of the General Telephone Company at Santa Monica, California. He advised that the General Telephone Company is cooperating with him in the development and demonstration of this equipment.

[redacted] stated that in the event additional information is needed concerning any of the described devices, he would be happy to be contacted either directly by letter, in person, or through a representative of the Los Angeles office.

Enclosure & 1 cc retained in Electronics Section

EX-105

REC-12

18 APR 27 1960

2-Bureau

1-Los Angeles

flb:ism

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ENCLOSURE

SEARCHED, SERIALIZED, INDEXED, FILED

APR 1960

Letter 4-19-60 cec:lw

UNITED STATES GOV

gm
MemorandumTO : Mr. Tamm *gm*DATE: March 28, 1960 *Jan 2*FROM : *gm*SUBJECT: TRACING OF TELEPHONE CALLS
(Bufile 80-789)b6
b7C

Tolson	✓
Mohr	✓
Parsons	✓
Belmont	✓
Callahan	✓
DeLoach	✓
Malone	✓
McGuire	✓
Rosen	✓
Tamm	✓
Trotter	✓
W.C. Sullivan	✓
Tele. Room	✓
Ingram	✓
Gandy	✓

SYNOPSIS:

A practical method of rapidly locating the originator of a telephone call in kidnapping, extortion, bomb threat, and similar cases has long been a matter of grave concern to the Bureau. In the days prior to dial telephones, it was relatively easy to trace a call through prearrangement with a cooperative telephone company. With the advent of dial telephones, utilizing automatic switching equipment instead of manual operators, the problem became infinitely more complex. Under certain conditions, a call can be traced where automatic equipment is used, but the process is both time consuming and costly. Telephone companies are reluctant to modify equipment to facilitate call tracing for policy as well as financial reasons. In spite of this, through excellent liaison with telephone companies, exceptions have been made for Bureau, and, in some cases, calls have been successfully traced.

The Laboratory is continuing to vigorously pursue the problem of tracing telephone calls. Through constant technical liaison with telephone design engineers, it has been possible to obtain assurance that call tracing facilities will be built into the Bell system's new electronic switching equipment presently in the design stage. (Memo Millen to Parsons, 11/9/59.) Field is kept up to date on technical details of the possibilities for successful call tracing. Laboratory thoroughly explores any new ideas for tracing calls which are developed in the Bureau. As a matter of fact, we are actually ahead of the Bell Laboratories in the field of techniques for tracing telephone calls; for example, the technique of using an ultrasonic tone for tracing a conversation path through an automatic exchange was suggested to the Bell Laboratories by the Bureau. This is the technique of putting an ultrasonic signal on the line which cannot be heard in the telephone instruments, but will allow the conversation path to be traced through a vast maze of wires in the exchange by use of a special probe or wand without making any actual contact with the wire, thus cutting the trace time down considerably. It is interesting to note that this technique employs the same principle as the FBI Laboratory developed ultrasonic listening device (RFMT) upon which we have a Top Secret patent pending under the Invention Secrecy Act of 1951.

REC-44

- 1 - Mr. Belmont
- 1 - Mr. Rosen
- 1 - Mr. McGuire

15 APR 29 1960

EX-107

AJB/CKC:rwp/pcc (8)

MAY 2 - 1960

Memo to Mr. Tamm
Re: Tracing of Telephone Calls

3/28/60

Telephone companies are generally pessimistic concerning call tracing due to limitations of equipment, as well as for policy and financial considerations. In spite of this negative attitude on the part of the telephone companies, Laboratory will continue to vigorously pursue the over-all objectives of devising methods of utilizing the telephone call tracing technique in carrying out the Bureau's responsibilities in the investigative field.

ACTION:

1. The Laboratory will continue to explore any and all possibilities for devising techniques to allow telephone call tracing with present day equipment.

2. The Laboratory will continue to maintain close liaison with the telephone design engineers in order to insure that call tracing capabilities are incorporated into the design of new types of automatic telephone switching equipment.

*gmk
4/1*

*It is imperative
that we keep ~~up~~
this particularly so
since more threats
of bombing planes
are being made over
phones.*

V.

DD

Memo to Mr. Tamm
Re: Tracing of Telephone Calls

3/28/60

DETAILS:

A practical method of rapidly locating the originator of a telephone call in kidnapping, extortion, bomb threat, and similar cases has long been a matter of grave concern to the Bureau. In the days prior to dial telephones, it was relatively easy to trace a call through prearrangement with a cooperative telephone company. This was accomplished by instructing the operator in the exchange serving the called party to get the telephone number of the calling party from the operator in the exchange where the call originated. With the advent of dial telephones, where a maze of electro-mechanical and electronic devices have replaced the manual operator, the problem became infinitely more complex. The telephone engineers are doing continuous research and development work in the design of automatic telephone switching equipment and the many various types of equipment in use throughout the industry are constantly being changed. Some switching systems lend themselves more easily to tracing possibilities than others but, at best, the process of tracing a call through one or more automatic telephone exchanges is both a time consuming and costly one. For example, it requires no less than three and as many as fifteen of the most highly-trained technical personnel for each telephone exchange the call is expected to or may pass through. To be prepared to trace a call of undetermined origin in the Washington metropolitan area would require no less than 384 of these men standing by on a nonproducing time basis. This is a costly manpower situation. In addition to the complex technical problems and extensive manpower requirements involved, other factors such as the tying up of a large number of circuits for extended periods of time and thereby making telephone service unavailable to customers paying for such service must be taken into consideration. For many years, telephone engineers designing automatic telephone equipment have followed the policy of placing the conversation path under the control of the calling party; that is, the caller is billed for the service and therefore he must be able to terminate the conversation when he desires merely by hanging up his instrument. Telephone company officials have indicated that any change in this policy would certainly constitute bad customer relations and might even be contrary to law.

In spite of this, through excellent liaison with the telephone industry, both at a high level in the American Telephone and Telegraph Company and with the individual operating companies throughout the field, many courtesies are afforded the Bureau which are not extended to other Government agencies. Local operating companies invariably have assisted the Bureau to the extent of their abilities when requested to do so. In some instances, these efforts have been

Memo to Mr. Tamm
Re: Tracing of Telephone Calls

3/28/60

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successful in identifying the calling party such as in the case entitled [redacted] Victim, Extortion," (Bufile 9-35675).

The success in this case was attributable to several factors; namely, (1) The subject made a number of calls from the same general area which enabled the Los Angeles Office to place radio equipped cars in the area of the phone booths where the calls were originating, (2) The telephone company had highly trained men standing by for three days to perform the trace, and (3) The victim was able to engage the subject in conversation long enough to complete the trace.

An annoyance call subject in the RUNAP case was identified under similar conditions. [redacted] West Haven, Connecticut; Bufile 7-8143, serial 127).

These cases constitute somewhat of an exception inasmuch as in most cases it is impossible to keep the subject on the line long enough to complete the trace.

The Laboratory is continuing to vigorously pursue the over-all objective of devising techniques which will permit the utilization of telephone call tracing as an invaluable investigative aid. We are constantly bringing this matter to the attention of designers of telephone equipment through liaison between Laboratory personnel and the engineers responsible for developing the complex electronic and electro-mechanical circuits used in automatic telephone exchanges. Through these efforts, it has been possible to focus the attention of telephone engineers onto the desirability of incorporating into the design of telephone equipment the capability for rapid tracing of telephone calls. In this regard, as you know, we have been assured that tracing facilities will be incorporated in the new Bell system's electronic switching equipment presently in the design stage. (Memo [redacted] to Parsons, Re: Tracing Telephone Calls, 11/9/59).

The field is kept advised of the possibilities of utilizing telephone tracing as an investigative aid through our retraining program for Sound-Trained Agents. This program includes a refresher in the techniques involved and the latest information on the susceptibility of the various types of automatic switching equipment to the utilization of such techniques. Sound-Trained Agents are encouraged to discuss the matter with their local telephone company contacts with the view of determining the nature of any locally designed circuits or techniques which may be applied to other areas.

Memo to Mr. Tamm
Re: Tracing of Telephone Calls

3/28/60

The Laboratory thoroughly explores any new ideas for tracing calls which are developed within the Bureau as well as any suggestions from the industry. In this regard, however, it is pointed out that the consensus of opinion among the industry engineers is that there is little hope of future success in call tracing by following the present concept of "locking-up" a conversation path to permit visual and physical tracing of the call because of serious limitations inherent in this approach. Their pessimistic attitude in this regard is based on the use of more and more completely automatic equipment, the many different types of switching equipment and the substantial amount of time required for experienced employees to make an actual visual and physical trace of a conversation path.

It is increasingly apparent that the attitude of the local operating companies on tracing calls is a negative one. They will attempt to trace a call for the Bureau as a cooperative gesture where the circumstances are favorable; however, they do not hold out much hope in this regard. As reported in [redacted] memorandum to Mr. Tolson, 9/5/58, an official of the telephone company in Washington, D. C., confidentially advised that they no longer attempt to trace nuisance type calls and stated that for all practical purposes they have just about abandoned any hope of tracing calls through automatic switching equipment as the "percentage of chances for success is so infinitesimally small as to make such an attempt hopeless." The matter is further complicated by direct distance dialing (long-distance dialing) and the use of unattended exchange offices. Calls going through unattended offices cannot be traced.

Although the operating telephone companies have consistently taken a negative approach to the tracing problem because of the inherent limitations in presently used automatic telephone switching equipment, the Laboratory will continue to investigate any and all new ideas which could possibly be of assistance in carrying out the Bureau's heavy responsibilities in the investigative field. In addition, we will continue to maintain close liaison with the telephone design engineers and make every conceivable effort to insure that designs for new types of automatic telephone switching equipment will incorporate the capability for a rapid method of tracing telephone calls. As an example of the Bureau's aggressive attitude on this matter, we are actually ahead of the Bell Laboratories in the field of techniques for tracing telephone calls; for example, the technique of using an ultrasonic tone for tracing a conversation path through an automatic exchange was suggested to the Bell Laboratories by the Bureau.

Memo to Mr. Tamm
Re: Tracing of Telephone Calls

3/28/60

This is the technique of putting an ultrasonic signal on the line which cannot be heard in the telephone instruments, but will allow the conversation path to be traced through a vast maze of wires in the exchange by use of a special probe or wand without making any actual contact with the wire, thus cutting the trace time down considerably. It is interesting to note that this technique employs the same principle as the FBI Laboratory developed ultrasonic listening device (RFMT) upon which we have a Top Secret patent pending under the Invention Secrecy Act of 1951.

Office Memorandum • UNITED STATES GOVERNMENT

b6
b7cTO : DIRECTOR, FBI
ATT: FBI LABORATORY

FROM : SAC, NEW YORK

SUBJECT: NUISANCE TELEPHONE CALLS- TRACING

~~TRACING OF TEL. PHONE CALLS~~

During April, 1960, a series of conferences were held between highly placed officials of the NY Telephone Company and the Bell Laboratories in an effort to study the problem of tracing and identifying persons responsible for making nuisance type telephone calls. These conferences were held upon the request of [redacted] Assistant Vice President of Engineering, NY Telephone Company. The immediate interest with respect to before mentioned conferences was apparently brought about by the great amount of pressure from subscribers such as the airlines. The airlines have requested the phone company to make every effort to devise means of identifying persons responsible for "bomb scare" calls, which are becoming a great concern to the airline industry. It is noted that this line of inquiry is very similar to the interest which the Bureau has had in this field for a number of years, particularly as to other problems presenting themselves with respect to kidnapping, extortion and many other types of case in which the Bureau has primary interest.

[redacted] Assistant Vice Present, New York Telephone Company, stated that the New York Telephone Company was primarily interested in devising a means of tracing nuisance calls by some electro-mechanical method. He stated that the findings of these conferences developed no information with regard to means of tracing nuisance calls which was not already known to the New York Telephone Company and the FBI. He stated that information which had been furnished to Staff Supervisor JAMES J. HILL on the various studies that had been made on this subject, was substantially the same as the findings at the conferences.

- 3 - Bureau
(1 - FBI Laboratory)
1 - New York

JJH:hd
(4)

EX 100

REC-33

80-784-65

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SERIALIZED
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52 MAY 17 1960

[redacted] Switching Engineer, Bell Laboratories, Inc, New York, furnished substantially the same information that was furnished by [redacted]. He stated that information regarding this subject which had been made available to Bureau Supervisor [redacted] and New York Supervisor JAMES J. HILL in the past, was substantially the same and best information that is available at this time. [redacted] related that [redacted] Bell Laboratories, Murray Hill, New Jersey, had recently declared a listing of some 12 subjects that should be given primary consideration for research and exploratory development. One of the 12 subjects which is so listed and under study is "a means for tracing nuisance calls". [redacted] observed that this was a principal subject of discussion had by Supervisors [redacted] and HILL in the most recent visit to the Murray Hill laboratories.

[redacted] stated that commencing April 10, 1960, and until the end of the summer, the Bell Laboratories in New York, have assigned a man to work full time on the subject of "tracing nuisance calls". [redacted] stated that it appears at this time that the Bell Laboratories is giving rather serious consideration to establishing some organized and planned research into voice identification. He stated at this point, it appears that the study will go along the lines of voice spectrum analysis along with speech characteristics, and if this program is put into full study, efforts will be made to devise a method of classifying voices. [redacted] stated that there were no real accomplishments at this time, but he had reason to believe that some useful methods and devices may come from these two projects. He stated that he would keep Supervisor HILL informed of any developments in this field.

[redacted] advised that any and all of the above mentioned projects are being motivated primarily for the telephone company and that the FBI has not been so much as named in connection with any of these conferences. He stated that at any phase of the discussion where law enforcement was the subject of interest, that the phrase law enforcement was used rather than using the names of any agency.

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This office will follow this matter with [REDACTED]
of the Bell Laboratories and keep the Bureau advised of any
developments.

UNITED STATES GOVERNMENT

Memorandum

Tolson
Mohr
Parsons
Belmont
Callahan
DeLoach
Malone
McGuire

TO : Mr. Tamm

DATE: 5/6/60

FROM : I. W. Conrad

SUBJECT: TRACING OF ANONYMOUS TELEPHONE CALLS

Reference is made to my memorandum of 4/4/60 telephone call from the New York Office to the effect that the New York Telephone Company had requested a series of conferences with officials of Bell Laboratories to study the problem of tracing telephone calls. New York was instructed to follow the matter very closely and to advise the Bureau of any developments that grew out of the conferences.

New York has now advised that these conferences, which apparently were brought about by pressure from subscribers such as the airlines on the operating company, have been completed.

[redacted] Assistant Vice-President, New York Telephone Company, has stated that the findings of these conferences developed no information with regard to means of tracing nuisance calls which was not already known to the New York Telephone Company and the FBI.

[redacted] an engineer of Bell Laboratories with whom we have conferred in the past on the subject of tracing telephone calls, separately has confirmed the information furnished by [redacted] as to the result of these conferences.

It is noted that, as reported separately, I personally conferred on April 7 with [redacted] Vice-President in charge of research at Bell Laboratories, at which time the subject of tracing anonymous telephone calls, as well as other subjects of interest to us were discussed. It was ascertained at that time that there had been no new developments in the field not previously known to us. However, as a result of the FBI Laboratory's interest in the problem, new equipment intended for future installation will have telephone tracing capabilities, and Bell Laboratories is continuing to expend a substantial effort in attempting to solve the problem with respect to equipment already installed. However, the latter phase of the problem does not look too promising.

This entire problem is being closely and vigorously followed by the Laboratory.

ACTION: None. For information only.

IWC:11h
(4)

NOT RECORDED

167 MAY 13 1960

18 MAY 12 1960

52 MAY 20 1960

SEVEN

ORIGINAL COPY FILED IN: 99-1-32726-1

SAC, Butte

5/19/60

REC-7 Director, FBI (80-789) 66

b6
b7C

TRACING TELEPHONE CALLS

PA 57
[redacted] Investigator, United Air Lines, Sea-Tac Airport, Seattle, Washington, an ex-Agent of the FBI, furnished the following information to an Agent of the Seattle Office.

While in Boise, Idaho, investigating a case involving a telephoned bomb threat regarding a United Air Lines plane, [redacted] spoke with a [redacted] of the Mountain States Telephone Company, who advised him of a device that had recently been developed by a [redacted] of the same company. The latter, a vice president of the company, devised this piece of equipment for the purpose of tracing telephone calls. This device supposedly consists of a clip equipped with a resistor and a varistor which can be attached to a telephone line. Anyone then making a telephone call to this line (such as an anonymous threat or other statement) and then hanging up can be traced, provided that the circuit is not broken by the line receiving the call.

This device is said to cause the procedure to reverse itself and the person (anonymous) calling becomes the receiver, and the receiver becomes the caller. For this procedure to succeed, it is necessary that the line to which the device is attached refrain from hanging up and thus breaking the connection.

[redacted] explained that the telephone company is willing to install this device on the telephone lines of United Air Lines (in the territory of the Mountain States Telephone and Telegraph Company), provided they first obtain the permission of the Federal Government to do so in order to protect them from any legal entanglements. This device will function properly, as alleged, on party lines, multiple exchanges and long-distance dialing setups.

MAILED 20
MAY 19 1960
COMM-FBI

Tolson _____
Mohr _____
Parsons _____
Belmont _____
Callahan _____
DeLoach _____
Malone _____
McGuire _____
Rosen _____
Tamm _____
Trotter _____
W.C. Sullivan _____
Tele. Room _____
Ingram _____
Gandy _____

1 - Seattle (95-0) For information.

Reurlet 5/12/60.

1 - Mr. Rosen (Attention: [redacted] Room 5730)

(Bufile)
1 - 149-0 (Destruction of Aircraft or Motor Vehicles)

1 - KCC: rwp (8) [initials]

1 - MAY 24 1960 TELETYPE UNIT []

(Continued Next Page)

UNRECORDED COPY FILED IN 100-1-101

Letter to SAC, Butte
Re: Tracing Telephone Calls

5/19/60

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SA [] a Sound-Trained Agent of our Seattle Office, discussed the matter with a confidential contact who stated that Pacific Telephone and Telegraph Company engineering experts have stated that it may be possible in a Step-by-Step telephone office to trace a call back to the point of origin by grounding one side of the line to hold incoming calls. The Bureau is aware of the grounding technique to lock up a call; however, the lock-up feature has been limited to the terminating exchange.

It is desired that you ascertain the technical details of the technique described by [] from Messrs. [] of the Mountain States Telephone Company, Boise, Idaho. Particular attention should be given to the feature which, according to [] will work on party lines, multiple exchanges and long-distance dialing setups. This matter should be fully explored.

In discussing this matter with the Telephone Company, it should be pointed out that, while this Bureau is interested in obtaining complete technical details of any technique which will assist in expediting the tracing of telephone calls, the Bureau cannot approve nor endorse the use of such equipment.

Your reply should be directed to the attention of the Electronics Section, FBI Laboratory, at an early date.

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (REG)
ATTN: FBI LABORATORY

DATE: 5/12/60

FROM : SAC, SEATTLE (95-0)

SUBJECT: TRACING TELEPHONE CALLS
LABORATORY MATTERS

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On May 4, 1960, [redacted] Investigator, United Air Lines, Sea-Tac Airport, Seattle, Washington, an ex-Agent of the FBI, advised SA [redacted] as follows:

He recently returned from Boise, Idaho, where he had investigated a case involving a telephoned bomb threat regarding a UAL plane. While there he spoke with a [redacted] of the Mountain States Telephone Company, station manager, who advised him of a device that had recently been developed by a [redacted] of the same company. The latter, a Vice-President of the company, devised this piece of equipment for the purpose of tracing telephone calls. This device supposedly consists of a clip equipped with a "resistor and a varistor" which can be attached to a telephone line. Anyone then making a telephone call to this line (such as an anonymous threat or other statement) and then hanging up can be traced, providing that the circuit is not broken by the line receiving the call.

This device is said to cause the procedure to reverse itself and the person (anonymous) calling becomes the receiver, and the receiver becomes the caller. For this procedure to succeed it is necessary that the line to which the device is attached refrain from hanging up and thus breaking the connection.

[redacted] explained that the telephone company is willing to install this device on the telephone lines of UAL (in the territory of the Mountain States Telephone and Telegraph Company), providing they first obtain the permission of the Federal government to do so in order to protect them from any legal entanglements. This device will function properly,

3 - Bureau (REG)
1 - Seattle

JLK:haf
(4)

REC-7

15 MAY 16 1960

EX-108

EXP. PROC.

B

SEVEN

100-19-60
Date 5-19-60
(cc attached Electronics)

80-789-66

as alleged, on party lines, multiple exchanges and long distance dialing setups.

X.
[redacted] stated that he had discussed this procedure with [redacted] Special Agent, Pacific Telephone and Telegraph Company, Seattle, but that [redacted] was non-committal.

[redacted] concluded by noting that one of the favorable features of this device is that it does not require continual monitoring by telephone company personnel and is inexpensive to install.

Mindful that such a device could be of valuable use to the FBI and particularly in the major case field, this matter was discussed with [redacted] identified above, by SAs [redacted] and EDWARD BREKKE, on May 6, 1960. McCAFFREY is a confidential contact of the Seattle Office.

Initially [redacted] advised that he did not believe that such a device would be successful in any way, in view of the existing automatic telephone equipment in use today.

On May 9, 1960, [redacted] advised that Pacific Telephone and Telegraph Company engineering experts in Seattle had stated that it may be possible in a "step-by-step" telephone office to ground one side of the line and thereby hold incoming telephone calls so that they may be traced to the origin. However, he advised that most of the offices in Seattle "are number one and number five crossbar offices; that there are some old panel type offices, but no step-by-step equipment."

He noted that American Telephone and Telegraph Company, New York, New York, and the Bell System Laboratories may have other and further information in regard to the above.

The Bureau may already have information relative to the development mentioned above. This is being furnished for whatever value it may have, either for experimenting along these lines or for further inquiry of [redacted] and/or [redacted] Mountain States Telephone Company, as the Bureau might decide.

UNITED STATES

Memorandum

TO : Director, FBI (80-789)
Attention: FBI LABORATORY
ELECTRONICS SECTION

DATE: 5/24/60

FROM : SAC, Butte

SUBJECT: TRACING TELEPHONE CALLS

ReBulet 5/19/60.

The device referred to in referenced letter has been discussed with employees of the Mountain States Telephone Company at Boise, Idaho, by SA DAVID W. MURRAY. During these discussions SA MURRAY obtained a diagram and descriptive information as to how the device functions. It is noted that SA MURRAY is currently attending the In-Service Class that began 5/23/60.

Prior to his departure for In-Service this matter was briefly discussed by telephone with SA MURRAY, at which time it was concluded he would take the information he obtained concerning the device in question and, while attending In-Service, would discuss same with someone from the Electronics Section of the FBI Laboratory in Washington, D.C.

It is suggested if such a discussion has not been had that the FBI Laboratory contact SA MURRAY at In-Service and go over the material he has concerning this device. Thereafter, if further information is desired the Butte Office will attempt to obtain same at Boise, Idaho.

2-Bureau (AM)
1-Butte

HGM:iap
(3)

REC-5

EX-102

16 JUN 2 1960

SEVEN

51 JUN 14 1960

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI (80-789)

DATE: 5/8/60

FROM : SAC, LOS ANGELES (66-119)

ATTENTION: ELECTRONICS
SECTION, FBI
LABORATORY

SUBJECT: TELEPHONE CALL TRACING DEVICE

TRACING

Rebulet, 4/19/60.

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b7c

On April 27, 1960, [redacted] Tele-Signal, 11618 Exposition Boulevard, Los Angeles 64, California, was contacted by SA [redacted] and advised as follows:

1. The equipment may be used on a fixed or a portable basis.
2. All the equipment that is needed in the Central Office is mounted on a standard 5 $\frac{1}{4}$ -inch by 19-inch panel.
3. The prototype equipment that he now has available was designed for step-by-step offices; however, crossbar and relay systems are under consideration, and he feels tracing equipment could be developed that would work in both of these types of offices.
4. The signal is longitudinal and is simplex on the line. The frequency of the signal is 7 kc and is transmitted at a -30 decibels.
5. [redacted] stated that the General Telephone Company of California is aware of the Tele-signal Call Trace equipment and would co-operate with him in further development of it if a potential user is found.

EX 105

③ - Bureau
1 - Los Angeles

FLB:pal/jmp
(4)

REC-32

JUN 17 1960

JUN 21 1960

SEVEN

It will be noted in regard to question 5, on April 28, 1960, [redacted] Technical Standards Administrator, General Telephone Company, Santa Monica, California, advised that the Tele-signal Call Trace Equipment is not practical at this time. He stated that it will only hold a call within the office in which the call terminates and that to the best of his knowledge, no equipment has been developed or is under development that will hold a call outside of the office other than where the call terminates. [redacted] stated that the General Telephone Company is willing to work with equipment and that [redacted] does have many practical ideas that are applicable to the telephone communication field.

6. The only equipment that is available has been built on a prototype basis, and it is not in use in any exchange at this time. [redacted] stated that FBI personnel are at liberty to examine and evaluate the prototype at any time and that he would make arrangements for a test installation at a General Telephone Central Office in the Los Angeles area if he was so requested by the FBI.

The Ultrasonic Alarm System is a product of the Walter Kidde Company, 9 Brighton Road, Allwood, New Jersey. He stated that this equipment when coupled with a Tele-signal transmission unit provides a foolproof, failsafe untrusion detection system. In connection with the Ultrasonic Alarm System, he pointed out that this signal is longitudinal and is simplex on the line. The frequency of the signal is 7 kc and is transmitted at a -30 decibels.

UNITED STATES

Memorandum

TO : Mr. Tamm

DATE: June 1, 1960

FROM : [REDACTED]

b6
b7CSUBJECT: TELEPHONE CALL TRACING DEVICE

- Tolson _____
- Mohr _____
- Parsons _____
- Belmont _____
- Callahan _____
- DeLoach _____
- Malone _____
- McGuire _____
- Rosen _____
- Tamm _____
- Trotter _____
- W.C. Sullivan _____
- Tele. Room _____
- Ingram _____
- Gandy _____

By letter dated 3-7-60, Los Angeles advised that the Tele-Signal Corporation, Los Angeles, developed a device for tracing telephone calls. The Electronics Section has reviewed the technical information which the field was requested to obtain. The equipment in its present state is rather limited in its application; however, there are latent possibilities which can be developed only by engineers familiar with the Bureau's over-all call tracing problem contacting the developer and additional work on the part of the design engineers at Tele-Signal.

It appears that the developer of the call tracing device has been successful in tracing and identifying the origin of calls within a single Step-by-Step central office switching system. We have, in the past, been able to trace calls successfully in this type of central office switching equipment; however, the call must be traced manually from switch to switch. Instant equipment eliminates the need to physically trace the call through each switch, which, as we know, is a time-consuming operation.

The designer of instant equipment indicates that his unit may have tracing possibilities in other types of central office switching equipment. The present state of this development does not assure successful operation in other types of dial switching equipment such as Crossbar, Panel, etc., without additional developmental expense. The research resources of this company are not known. It is, therefore, impossible to predict how far they will be able to finance such a project. Too, it is impossible, at this time, to estimate the cost for the development without first knowing the minute details of the present state of the art and capabilities of this unit.

It appears that the simplex method of superimposing a tone longitudinally on the telephone line during the tracing period, such as the developer uses on his alarm circuit, might cut time required to physically examine each switch contact by permitting the telephone company personnel to scan all incoming possibilities with a tuned receiver thus by-passing the physical examination of each switch point. This matter will have to be explored in more detail by personnel familiar with the operation of various types of central office switching equipment.

50 JUN 22 1960

4 JUN 17 1960

1 - Mr. Rosen (Attention: [REDACTED] Room 5730
1 - Bureau file 149-0- (Destruction of Aircraft or Motor Vehicles)

80-789

CKC:pcc (7)

UNRECORDED COPY FILED IN 149-0-1

TRACING TELEPHONE CALLS

Memorandum to Mr. Tamm
RE: TELEPHONE CALL TRACING DEVICE
80-789

It is felt that further exploration by Los Angeles is not warranted at this time because the sound-trained personnel in the field do not have detailed knowledge of the Bureau's over-all call tracing problem. Accordingly, the next time an engineer from the Electronics Section is in the Los Angeles area he will contact the Tele-Signal Corporation for additional technical information and to explore the latent possibilities of instant equipment.

ACTION:

The next time an Electronics Section engineer familiar with the over-all call tracing problem is in the Los Angeles area he will contact the Tele-Signal Corporation to determine the extent to which the equipment may be applied to all types of telephone switching systems.

OK
A

DS

Office Memorandum • UNITED STATES GOVERNMENT

TO : DIRECTOR, FBI

DATE: 6/14/60

Attention: FBI LABORATORY
SAC, BUTTE ELECTRONICS SECTIONSUBJECT: TRACING OF TELEPHONE CALLSb6
b7C

ReBulet 5/19/60 and Butte reply dated 5/24/60.

On 6/3/60 SA [] Electronics Section, FBI Laboratory, Washington, D. C., contacted SA DAVID W. MURRAY, who was attending In-Service, to request that additional information concerning the device developed by Mountain States Telephone and Telegraph Company to trace nuisance calls be obtained.

The following inquiry was conducted by SA DAVID W. MURRAY.

AT BOISE, IDAHO

On 6/10/60 [] District Plant Superintendent, Mountain States Telephone and Telegraph Company, Seventh and Bannock, furnished the following explanations to the questions listed below:

1. Q. How many devices (clips) are required to cover all calls coming to a subscriber with only one telephone number?

A. In a rotary connector used in the step-by-step switch system it would be necessary to use as many of the devices as you have rotary connectors in a telephone group. This would mean it would be necessary to have enough of the devices to cover all of the connectors associated with the telephone number. The rotary connector system is often referred to as a stepper switch and is one which selects the number and rings it.

If, for example, a business, such as an airline office, had ten trunk lines running to it from the telephone exchange on a single telephone number, it would be necessary

- ② - Bureau (AM-Reg.)
- 1 - Butte
- DWM:fpmc
- (3)

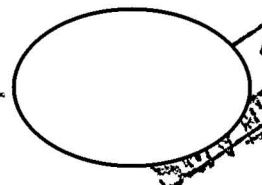
REC-31

80-789-70

EX 109

12 JUN 21 1960

62 JUN 23 1960

No reply necessary
4/17/60

Re: Tracing Telephone Calls

to install the device on all the connector switches associated with that telephone number to cover nuisance calls. In a ten-trunk system it would be necessary to use a maximum of twenty-two of the devices. Generally there are eleven switches in each connector shelf and a device would be used for each switch. In the event there were two connector shelves associated with the same telephone number, an additional eleven of the devices would be needed to cover the eleven switches.

2. Q. How will the system work through a manual switchboard?

A. If the manual switchboard is at the subscriber's place of business, the system would still function if the person receiving the call kept the phone off the cradle. It would be necessary under the circumstances to advise the manual switchboard operator to keep the line plugged in. The clips would still be installed in the exchange.

3. Q. In a step-by-step system there are a number of connectors to which the subscriber's line is connected. It is assumed that a clip is provided for each connector on which the subscriber's line appears.

A. Yes. (See explanation for number 1).

4. Q. With a switchboard, it is assumed that the subscriber operator would not take down her cord circuit until the extension was hung up. If this is the case, then the system should work the same as a regular subscriber's line with an instrument connected to it.

A. Yes. If, however, the telephone company exchange is manually operated, the device will not work because no stepper switches are used in the manual system.

[redacted] pointed out that he had erred in discussing the ohm resistance on the device as 300 resistance. It is a .027 resistance. In the event the device is desired for study by the Bureau, [redacted] suggested that contact be made with American Telephone and Telegraph Company, 195 Broadway, New York, New York, pointing out that such a device has been developed by Mountain States Telephone and Telegraph Company,

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b7C

Re: Tracing Telephone Calls

Denver, Colorado. [] states he has sufficient numbers of the device on hand at Boise to handle any reasonable nuisance call problem. In the event the Laboratory desires further explanation about the operation and function of the device, he will be pleased to cooperate fully.

The above is submitted as requested.

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Tamm *QX*

DATE: 6/28/60

FROM : *RMS*SUBJECT: *0*
TRACING TELEPHONE CALLS
(80-789)

Tolson	_____
Mohr	_____
Parsons	_____
Belmont	_____
Callahan	_____
DeLoach	_____
Malone	_____
McGuire	_____
Rosen	_____
Tamm	_____
Trotter	_____
W.C. Sullivan	_____
Tele. Room	_____
Ingram	_____
Gandy	_____

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Investigator, United Air Lines, Sea-Tac Airport, Seattle, Washington, an ex-Agent of the FBI, advised the Seattle Office that a device had recently been developed by an employee of the Mountain States Telephone Company, a Bell System organization, to trace telephone calls.

The Butte Office, at the request of the Laboratory, determined that the call tracing device mentioned by was a refinement of a technique already known to the Laboratory. The tracing device merely transfers the control of the conversation path from the calling to the called party. It is so wired that the control for all calls coming to a particular subscriber will be transferred to the called party automatically.

This call tracing device eliminates one manual operation heretofore employed in the tracing of telephone calls in Step-by-Step central office equipment in that the control for the call is transferred electrically from the calling to the called party. With this equipment, the conversation path is locked up until the tracing of the call has been completed or the handpiece or receiver of the called subscriber's telephone has been restored to the cradle. This call tracing device does not eliminate the need for having a premium paid, highly trained and experienced craftsman on stand-by in a nonproductive capacity waiting to visually trace a call through each piece of switching equipment associated with the conversation path in the terminating central office. This tracing unit will not hold the call beyond the terminating office.

Through our supervision of the over-all call tracing problem, we have observed and examined a number of devices used to lock up a conversation path in telephone exchanges using Step-by-Step switching equipment. This new attachment is merely a modification of existing techniques which we are aware of, and, while it will eliminate to a limited extent the human factor of manually locking up the conversation path, it does not represent a startling revelation in the telephone

1 - Mr. Rosen (Attention:)

Cia
CKC:rwg
(8)

EX-105

REC-66

12 JUL 1 1960

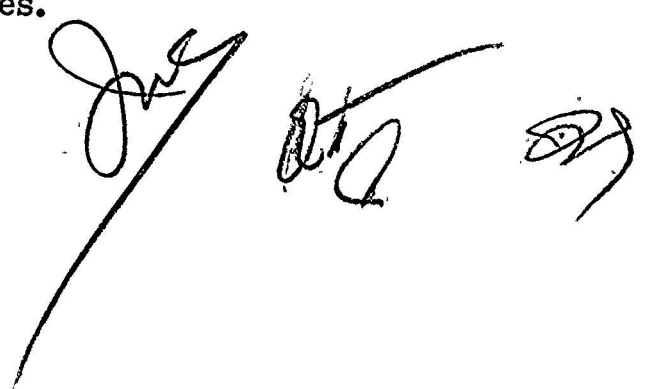
52 JUL 7 1960

Memo to Mr. Tamm
Re: Tracing Telephone Calls

6/28/60

tracing technique. Too, it should be pointed out that this tracing equipment is limited to Step-by-Step type of switching equipment, a type of equipment that with few exceptions is restricted to relatively small cities. In some of the larger cities, such as Miami, Houston, etc., where the Step-by-Step equipment is still being used, it is being replaced with newer and more versatile switching equipment as the service demands.

ACTION: For record purposes.

Three handwritten signatures are present below the 'ACTION' line. The first signature is a large, stylized 'J' with a long diagonal stroke. The second signature is a smaller, more compact scribble. The third signature is a small, circular mark.

SAC, Charlotte (66-418)

July 13, 1960

Director, FBI (80-739) 72

REC-23

TRACING TELEPHONE CALLS

Be
Reurlet 7/11/60, captioned "Telephone Circuit Equipment."

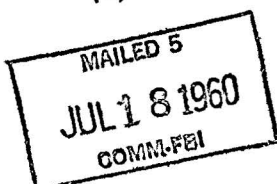
The Laboratory has maintained excellent liaison with the Automatic Electric Sales Company, Chicago, Illinois, and has been kept currently advised of circuits mentioned in referenced letter. The Laboratory is particularly interested in special circuits developed by local operating telephone companies that facilitate tracing telephone calls. Accordingly, should information of this type come to your attention in the future, you should feel free to advise the Bureau concerning the circuits employed.

Your interest, as well as that of SA in reporting this matter is appreciated.

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NOTE: Laboratory contacts with Automatic Electric Sales Company have resulted in circuit details for instant tracing equipment. These contacts have been made through frequent visits from the local area representative as well as occasional visit to the Automatic Electric Sales Company's Experimental Laboratory in the suburban Chicago area.

CKC
CKC:rwp
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Tolson _____
Mohr _____
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Malone _____
McGuire _____
Rosen _____
Tamm _____
Trotter _____
W.C. Sullivan _____
Tele. Room _____
Ingram _____
Gandy _____

62 JUL 22 1960

MAIL ROOM ☐

TELETYPE UNIT ☐

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI (ATTN.: FBI LABORATORY) DATE: 7/11/60

FROM : SAC, Charlotte ~~(66-00)~~ 66-418

b6
b7C

SUBJECT: Tracing Telephone Calls
TELEPHONE CIRCUIT EQUIPMENT

On 6/29/60, [redacted] Manager, Central Telephone Company, Hickory, N. C., advised SA [redacted] that a device has been used by that company, both in Hickory, N. C. and in Illinois, which device is known as an automatic trap circuit. This device reverses the holding of a telephone circuit from the caller to the person called, making it impossible for the caller to break the circuit, thus permitting tracing of dial calls. It works on local calls only and will not work on Long Distance Calls. He said that the device would work only on equipment made by the Automatic Electric Company.

He suggested that if details of the device are desired, that [redacted] President, Automatic Electric Sales Co., North Lake, Illinois, be contacted, since that company made the device for Central Telephone Co.

[redacted] stated that he had used this device to aid in identifying nuisance callers in his Illinois Office and it had worked extremely well.

This info is being furnished since the Bureau may desire to make inquiry about this and related devices, such devices having a good potential in bomb threat calls, extortion and kidnaping cases, and related instances where the telephone may be used repeatedly.

2-Bureau
1-Charlotte ~~(66-00)~~ 66-418
(3)
JRJ:JHS

REC-23

80-789-72
7 JUL 19 1960

Mr. Tamm

September 16, 1960

b6
b7C

[REDACTED]
[REDACTED] aka
ITSP; FRAUD BY WIRE

ReBulet 9/12/60, to Miami captioned as above. It has been ascertained that the device reported by Miami to be used to by-pass the timing equipment in CAMA (Customer Assist Machine Accounting) and AMA (Automatic Machine Accounting) associated with DDD (Direct Distance Dialing) will work under certain conditions, however the talking time will be limited from two seconds to a maximum of two minutes. The success of this equipment will depend upon the following factors:

- (1) The shorting out of the ringing equipment long enough to have the ringing relay in the central office drop out of the circuit and yet short enough to prevent the one to four-second off-the-hook mode condition to be reflected back to the timer in the CAMA or AMA equipment. The Western Electric 313C cold cathode tube provides the momentary off-the-hook mode.
- (2) The length of time it requires the Central Office "time out" equipment to cut the "called" station off the line. In the Bell System exchanges this time out equipment will vary from a few seconds in the newer switching equipment to two minutes in Step-by-Step Central Office equipment.
- (3) The length of time it requires the sender at the Central Office controlling the second instrument at the called station to "time out" and put a permanent (trouble) signal on the second telephone line. The dialing of the single set of pulses to clear the dial tone on the second instrument at the called station can be repeated many times; however there is no advantage in repeating this operation beyond the "time out" of the called number.

- 1 - Mr. Rosen (Attention: Mr. Curran, Room 7204)
- 1 - 66-8160 (Technical Surveillance Equipment)
- ① - 80-789 (Tracing Telephone Calls)
- 1 - 80-781 (General Telephone Technical Data)

80 789-
NOT RECORDED
46 SEP 19 1960

62 SEP 19 1960

Memorandum to Mr. Tamm from [redacted]

Re: [redacted]

aka

ITSP; FRAUD BY WIRE

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b7c

It was pointed out in Bulet to Miami that special wiring must exist to permit the operation as set out in their letter dated 8/10/60. The "time out" features on the telephones connected to the special device may be adjusted or even paralyzed so that extended conversations may be conducted. The condition may be caused by a malfunction of the central office switching equipment or it may have been created by a confederate working within the telephone company at the terminating central office. The operating telephone companies make every effort to prevent malfunctions of this type through regular routine cleaning and adjusting switching equipment as well as through the use of automatic testing equipment designed to ferret out defects and malfunctions of the switching equipment. They constantly remind personnel of their obligation to insure subscribers of proper and secure communication facilities. When they find an employee not meeting these standards the employee is dismissed immediately.

ACTION: None. For information.

SAC, San Francisco (149-00)

July 28, 1960

Director, FBI

**DESTRUCTION OF AIRCRAFT OR
MOTOR VEHICLES (FALSE REPORT)**

Reurlet 7-15-60, captioned as above, reporting a call tracing device which was developed by the Mountain States Telephone Company. The Bureau has explored the call tracing aid developed by the Mountain States Telephone Company at Boise, Idaho. As pointed out in your letter, the device is restricted to central offices employing Step-by-Step switching equipment, which equipment is being replaced with newer and more modern switching devices as service demands.

The "trouble recorder" technique has been explained to Sound-Trained Agents in the past. In addition, Sound-Trained Agents are furnished current information concerning developments in the telephone industry when they are attending sound refresher training classes in Washington.

Your interest in bringing this matter to the Bureau's attention is appreciated and should additional information be developed along this or any other technical line, the Bureau should be advised attention FBI Laboratory.

1 - Bufile 80-789 (Tracing Telephone Calls)

1 - Mr. Rosen (Attention: Room 5726)

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CKC:pcc (8)

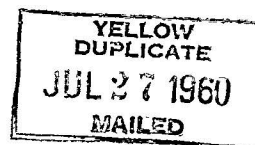
NOTE: Technical matters which should be brought to the attention of all field personnel have in the past been sent out via SAC letter. It is felt that the techniques mentioned herein involve technical problems which should be handled only by Sound-Trained Agents. Therefore, dissemination has been restricted to the Sound-Trained personnel.

Tolson _____
Mohr _____
Parsons _____
Belmont _____
Callahan _____
DeLoach _____
Malone _____
McGuire _____
Rosen _____
Tamm _____
Trotter _____
W.C. Sullivan _____
Tele. Room _____
Ingram _____
Gandy _____

MAIL ROOM ☐ TELETYPE UNIT ☐

NOT RECORDED

98 SEP 2 1960



ORIGINAL FILED IN

UNITED STATES GOVERNMENT

Memorandum

TO: DIRECTOR, FBI

DATE: 7/15/60

FROM: SAC, SAN FRANCISCO (149-00)

SUBJECT: DESTRUCTION OF AIRCRAFT OR
MOTOR VEHICLES (FALSE REPORT)b6
b7C*TRACING Telephone Calls*ReBulet to Albany, copies to all Offices, dated 1/8/59
and San Francisco letter to Bureau dated 1/21/59.

[redacted] an Investigator for United Air Lines (UAL), San Francisco, has brought to the attention of this Office information which might be of considerable value to the Bureau in investigating cases involving anonymous phone calls of any nature.

He said that on 4/18/60, a "bomb threat" type call was received by UAL in an area receiving telephone service from the Mountain States Telephone Company. As a result of this anonymous call, a [redacted] Plant Manager of this phone company in Boise, Idaho, advised UAL that there is a device which is relatively new, having been developed within the last 2 years by someone in Albuquerque, New Mexico, in conjunction with a [redacted] who is Vice-President of the Mountain States Telephone Company, located at Boise, Idaho. This device consists of a clip which has in it a transistor and a verister. [redacted] was unable to describe this clip in technical language, but said that it basically makes the receiver the caller. He said once a call is made to a phone as long as that phone is not hung up the call can be held indefinitely and subsequently traced. He said the device is placed on the line at the phone company office, and that it can remain on the line indefinitely, and does not involve monitoring any calls. Actually, he said all the clip does is to set up a reverse system making the person receiving the call the caller.

The Pacific Telephone and Telegraph Company in San Francisco was contacted in connection with the above information, which in turn made contact with [redacted] of the Mountain States Telephone Company, who advised that this device can only be used on "step-by-step offices" which are the old-type offices to be found outside of metropolitan areas or those parts of the country.

2 - Bureau
1 - San Francisco

TFW/af
(3)

180-289-
NOT RECORDED
98 SEP 2 1960

SEVEN

ORIGINAL FILED IN 149-00-281

SF 149-00
TFW/af

b6
b7C

in which automatic dial equipment has been installed in recent years. The device "reverses supervision" of the call so that as long as the receiving party (such as a switchboard operator at an airport) keeps the cord up on the PBX that party has control of the call and does not lose the connection even though the calling party hangs up. This procedure will not work on automatic equipment of the type in use in San Francisco. As an example, all equipment at the San Francisco International Airport is "No. 1 crossbar," South San Francisco, and as a matter of fact all equipment in San Francisco is either No. 1 crossbar or "panel" equipment.

^{2747, SF}
[] pointed out that many areas within the territory of Mountain States Telephone Company would still have step-by-step offices and likewise many small communities in California would have step-by-step offices. In this regard, [] office has used a similar method of holding incoming calls in step-by-step offices by "rewiring the final connection." This has been done in giving assistance to local law enforcement officers. As nearly as [] can determine the principal difference between the device employed by the Mountain States Telephone Company and the procedure employed by his office is in that the Mountain States device can be clipped on without the necessity of rewiring a final connection. [] stated once he has obtained the device and technical details from [] his office may well employ it in California. He mentioned such communities as Vallejo, Fresno, Brentwood and Oakdale as still having step-by-step offices but he again pointed out that neither the device nor the procedure would be of any use in San Francisco.

[] stated that in "No. 5 crossbar offices" they are able to use what is known as a "trouble recorder" which is accomplished by a "6600 tip ground" which will "drop a card" showing the number calling in. However, this can only be used on single party business or residential lines and cannot be used on PBX equipment. This could have some application in such investigations as kidnapping, extortion, etc.

SF 149-00
TFW/af

The following communities in Northern California presently have No. 5 crossbar offices:

Martinez
Walnut Creek
Concord
San Rafael
San Leandro
San Lorenzo
Livermore
Sausalito

This information is being furnished to the Bureau as it might be of interest to in-service classes, pointing out there is such a device and that it might be useful in certain areas of the U.S., depending on what type of telephone equipment is being utilized.

[redacted] of the Telephone Company stated that he will attempt to obtain more technical details regarding this particular device utilized by the Mountain States Telephone Company and furnish any information to the San Francisco Office if and when he receives it.

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b7C

If in a reasonable period of time [redacted] does not get any further information regarding this device and if the Bureau is not already aware of this device, the Laboratory might want to consider having the engineers contacted who were responsible for the development of this device looking toward its potential application to Bureau work.

DATE OF MAIL 9-28-60

HAS BEEN REMOVED FOR THE CONFIDENTIAL FILE ROOM OF THE DOMESTIC INTELLIGENCE DIVISION.

SEE FILE 66-2554-7530 FOR AUTHORITY.

SUBJECT JUNE MAIL *Tracing Telephone Calls*

REMOVED BY *61* ²⁸⁷ ⁶³⁹¹ OCT 10 1960

FILE NUMBER 80-789-73

PERMANENT SERIAL CHARGEOUT

F B I

Date: 10/4/60

Transmit the following in _____
(Type in plain text or code)Via AIRTEL AIRMAIL
(Priority or Method of Mailing)

TO: DIRECTOR, FBI (80-789)

FROM: SAC, LOS ANGELES (66-119) ATTN: ELECTRONICS SECTION
FBI LABORATORY

RE: TELEPHONE CALL TRACING DEVICE

0 TRACING

ReBulet 9/28/60.

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b7c

On 10/4/60 [redacted] Tele-Signal,
11618 Exposition Blvd., LA, advised that he has made
tentative arrangements to demonstrate his call tracing
device at one of the telephone companies central offices
in the LA area. He stated he would be able to furnish
the date and time of the demonstration by Friday, 10/7/60.

Bureau will be immediately advised of the final
date and time of demonstration.

- ④ - Bureau / Retained in Electronics Section
1 - Los Angeles

FLB:mgj
(5)

No reply necessary cke

80-789-

NOT RECORDED
OCT 11 1960

53 OCT 12 1960

SEVEN

Approved: _____
Special Agent in Charge

Sent _____ M Per _____

10-14-60

CODE

RADIOGRAM

REC- 55

URGENT

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b7C

TO SAC LOS ANGELES
FROM DIRECTOR FBI (80-789)

TELEPHONE CALL TRACING DEVICE. REURAD OCTOBER ONE THREE,
ONE NINE SIX ZERO, AND URLET OCTOBER THREE, ONE NINE SIX
ZERO. SA [] WILL ARRIVE LOS ANGELES VIA UNITED AIR
LINES FLIGHT EIGHT FIVE ONE AT FIVE FIVE ZERO P.M.,
OCTOBER ONE FIVE, ONE NINE SIX ZERO. IT IS REQUESTED YOU
NECESSARY HOTEL
MAKE/RESERVATIONS FOR SA [] WHILE IN YOUR DIVISION
[] WILL SURVEY THE TWO PROPOSED DROP INSTALLATIONS
FOR POSSIBLE COVERAGE OF SAME BY ELECTRONIC MEANS.

RADIO

WGS:PCC (7)

OCT 14 1960

FEDERAL BUREAU OF INVESTIGATION
U. S. DEPARTMENT OF JUSTICE
COMMUNICATIONS SECTION

NOTE: Memorandum [] to Tamm dated 9-16-60, approved trip to
Los Angeles for interview and demonstration of call tracing device developed
by Tele Signal Corporation, Los Angeles.

NOTE: If radio contact missed this date, send by encoded teletype.

1 - [] Div. 5

Tolson _____
Mohr _____
Parsons _____
Belmont _____
Callahan _____
DeLoach _____
Malone _____
McGuire _____
Rosen _____
Tamm _____
Trotter _____
W.C. Sullivan _____
Tele. Room _____
Ingram _____
Gandy _____

DUPLICATE YELLOW OF
WIRE TRANSMITTED

MAIL ROOM ☐ TELETYPE UNIT ☐

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DECODED COPYb6
b7C

Tolson	_____
Mohr	_____
Parsons	_____
Belmont	_____
Callahan	_____
DeLoach	_____
Malone	_____
McGuire	_____
Rosen	_____
Tamm	_____
Trotter	_____
W.C. Sullivan	_____
Tele. Room	_____
Ingram	_____
Gandy	_____

☒ **Radio**☐ **Teletype**

URGENT 10-13-60

TO DIRECTOR

FROM SAC LOS ANGELES 131945

ATTENTION: ELECTRONICS SECTION FBI LABORATORY. TELEPHONE CALL TRACING DEVICE. RE BULET SEPTEMBER 28 LAST. FINAL ARRANGEMENTS HAVE BEEN MADE FOR A PRACTICAL DEMONSTRATION OF CAPTIONED DEVICE, 9:30 AM, OCTOBER 17 NEXT.

RECEIVED: 5:43 PM RADIO

6:24 PM CODING UNIT BMQ

callegrom 10/14/60
WGS: pcc
[Signature]

EX 105
 9/12/60
 REC-55

80-789-74
 OCT 19 1960

cc -

UNITED STATES GOVERNMENT

*Memorandum*TO : MR. BELMONT *also*DATE: 10/13/60

FROM :

b6
b7Ccc Mr. Parsons
Mr. Tamm
Mr. Belmont

Tolson	_____
Mohr	_____
Parsons	_____
Belmont	_____
Callahan	_____
DeLoach	_____
Malone	_____
McGuire	_____
Rosen	_____
Tamm	_____
Trotter	_____
W.C. Sullivan	_____
Tele. Room	_____
Ingram	_____
Gandy	_____

SUBJECT: TRACING OF TELEPHONE CALLS

Reference is made to the attached memorandum, Millen to Tamm, dated 10/7/60, asking this Division to designate cities of population 100,000 to 300,000, where investigative time would be appreciably reduced if calls could be traced.

From the point of view of the work of this Division, the cities in which the tracing of calls would most likely be of value are the large cities, particularly NY, Washington, Chicago, Los Angeles, and San Francisco. Beyond that, it is not possible to state which cities having population as indicated would be the ones in which tracing would best serve the needs of this Division.

Any cities designated by the Investigative Division for test purposes would be satisfactory with this Division.

JAS:CSH (4)

Memo prepared. C.K.

REC-72

EX-102

80-789-75

12 NOV 1 1960

60
63 NOV 4 1960KRC
CJMM

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Tamm

DATE: November 1, 1960

FROM : [redacted]

SUBJECT: TELEPHONE CALL TRACINGb6
b7C

Tolson	_____
Mohr	_____
Parsons	_____
Belmont	_____
Callahan	_____
DeLoach	_____
Malone	_____
McGuire	_____
Rosen	_____
Tamm	_____
Trotter	_____
W.C. Sullivan	_____
Tele. Room	_____
Ingram	_____

As you know, the Electronics Section has continued to vigorously follow to logical conclusion any and all leads which deal with the above-captioned problem. At the present time we are pressing on two fronts represented by a recent development in the Bell Laboratories (my memorandum to you of 10-7-60) and a development by Tele-Signal, a private group in Los Angeles (my memorandum to you of 9-16-60).

With regard to the latter, Supervisor [redacted] recently examined their equipment in detail in Los Angeles. The Tele-Signal tracing equipment demonstrated is designed to operate on a particular type telephone system used by some independent telephone companies. Under certain limitations imposed, a call was successfully traced within a short period of time by means of their equipment. Under their tracing proposal certain equipment would necessarily have to be added as a permanent feature to each telephone exchange in the city to be covered. This system was stated by its developers to be compatible with the Bell system. This has not been demonstrated or proven as yet. This will, of course, be followed through our telephone company contacts from a technical standpoint to evaluate the extent to which this development might possibly find application in the Bureau's work.

A complete technical report covering the Tele-Signal equipment will be forwarded separately.

ACTION:

For information.

1 - Mr. Rosen

1 - Bufile 149-0

RLM:cay (9)

REC-33

15 NOV 3 1960

50 NOV 8 1960

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UNITED STATES GOVERNMENT

*Memorandum*TO : Mr. Tamm *BT*

DATE: October 17, 1960

FROM : A. Rosen *R*SUBJECT: *O* TRACING OF TELEPHONE CALLS

Tolson	_____
Mohr	_____
Parsons	_____
Belmont	_____
Callahan	_____
DeLoach	_____
Malone	_____
McGuire	_____
Rosen	_____
Tamm	_____
Trotter	_____
W.C. Sullivan	_____
Tele. Room	_____
Ingram	_____
Gandy	_____

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Memorandum dated October 7, 1960, from to Mr. Tamm recommended the Investigative Division submit a list to the Laboratory of cities in the order of preference where they feel a cost study for the installation of the Bell System developed technique should be made.

The Investigative Division has no preference of cities for the purpose above stated.

JRM:jh

(4) *JRM*

REC-23

80-789-77

EX-136

5 NOV 9 1960

7-58
51 NOV 21 1960*ack*
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NOV 15 1960

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Tamm

DATE: October 7, 1960

FROM : [REDACTED]

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b7C

Tolson	_____
Mohr	_____
Parsons	_____
Belmont	✓
Callahan	_____
DeLoach	_____
Malone	_____
McGuire	✓
Rosen	_____
Tamm	_____
Trotter	_____
W.C. Sullivan	_____
Tele. Room	_____
Ingram	_____
Gandy	_____

SUBJECT: TRACING OF TELEPHONE CALLSSYNOPSIS:

Automatic telephone dial switching equipment, by its basic design of the calling party maintaining control of the conversation path, makes tracing telephone calls virtually impossible unless the conversation is sufficiently long to permit physical examination of each of the multitude of points through which the call must pass. With extension of dialing facilities this problem becomes more complex and therefore increases the places where the checks must be made. Despite this apparently insurmountable obstacle, we have continued to vigorously pursue this matter with a hope of ultimate solution.

Electronic Section engineers, in conferences with Bell Telephone Laboratories' engineers and independent developers, have encouraged renewed research in this matter which research has resulted in the development of two techniques that may offer possibilities for expediting the tracing of calls. These techniques will eliminate much of the physical examination previously required to trace a call; however, final identification must be made manually and will require craftsmen in each central office to remain on standby waiting for an eventuality which may never develop. Even if these techniques prove successful, it will be necessary to sell the required modifications to the operating companies.

Arrangements are now being made for a conference with the inventor and demonstration of the independent developer's technique. The Bell Laboratories' system will be explored further.

Our informant in the local telephone company who, as you know, has a prominent voice in forming Bell System policy in matters of this type feels that we will meet resistance from operating companies if equipment must be installed on a company-wide or city-wide basis. The

- 1 - Mr. Rosen
- 1 - Mr. Belmont

80-789

CKC:pcc(9)

NOV 23 1960

memo to Tamm from Rosen 80-789-78
REC-23
10/17/60

NOV 9 1960

EX-107
SEVEN

Memorandum to Mr. Tamm
RE: TRACING OF TELEPHONE CALLS
80-789

equipment must be installed on a city-wide basis, at least, if it is to be effective. He feels that if the equipment is made an integral part of the telephone system, tariff rates must be filed and the tracing service made available to all subscribers, a condition which his company does not want. If tariff rates are filed, the companies are required to charge for the tracing service, a service we have been afforded gratis. There is also a legal question as to the company's right to perform this function. The informant feels that the chances of selling the technique to operating companies will be enhanced if equipment can be installed only in individual cases when the need arises, such as in kidnaping and related cases.

The Bell Laboratories engineer feels he can make a cost survey of installation costs for a "moderate-sized" city. While tracing calls is contrary to existing telephone company practices and we may meet resistance in having the required modifications installed, I feel that this new Bell Laboratories technique should be explored. Accordingly, the Domestic Intelligence and Investigative Divisions are requested to submit a list of cities, in the order of preference, where they feel a cost study for installation of this technique should be made. The cities should be restricted to population areas of from 100,000 to 300,000 and cities where investigative time will be appreciably reduced if calls can be traced. The Laboratory will then coordinate this matter with both Bell Telephone Laboratories and the field.

We will continue to follow this matter vigorously.

RECOMMENDATION:

It is recommended that the Domestic Intelligence and Investigative Divisions submit a list to the Laboratory of cities, in the order of preference, where they feel a cost study for the installation of the Bell System developed technique should be made. The cities should be restricted to population areas of from 100,000 to 300,000 and cities where investigative time will be reduced appreciably if calls can be traced.

The Laboratory will coordinate the cost survey with both the Bell Telephone Laboratories and the field.

ESD - 2 - JRS

Memorandum to Mr. Tamm
RE: TRACING OF TELEPHONE CALLS
80-789

DETAILS:

Automatic telephone dial-activated switching equipment has been designed with the basic concept of the calling party maintaining control of all interconnecting facilities necessary to complete and maintain a call to its destination. This design feature makes it virtually impossible to trace a call unless the calling party maintains the conversation path long enough to physically examine each point through which the call passes. With the extension of dialing facilities, such as intercity, the switching equipment has become more complex and the possibilities for a successful trace has been reduced to a minimum. Despite this apparently insurmountable obstacle, we have continued to vigorously pursue the matter with a hope of ultimate solution.

In my memorandum dated 11-9-59, I reported the results of a conference an engineer of the Electronics Section had with the leading telephone switching engineers of Bell Telephone Laboratories concerning captioned matter. During the conference the possibility of superimposing a tone on the telephone line to be traced was discussed with a view of expediting the tracing of a call and the elimination, insofar as possible, of the manual operations now employed by operating companies. Engineers in this Section proved that such a tone can be put on an active line and passed through two exchanges without subscriber detection. We have continued to pursue this technique. We are arranging for an interview with an independent inventor and for a demonstration of a device employing this technique in tracing calls through certain types of exchange equipment. (See memorandum [redacted] to Tamm 9-16-60, and letter to Los Angeles 9-28-60.)

We are now informed, by New York letter dated 10-3-60, captioned Nuisance Calls-Tracing Thereof, Bell Laboratories, Incorporated, that [redacted] an engineer attending the above-mentioned conference, feels that the Bell Laboratories have devised a method to identify the origin of the calling party, within a ten number group, from the called instrument. The final identification (last number of the 10 group) must be done manually. [redacted] estimates the tone generator for his technique will cost from \$100.00

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Memorandum to Mr. Tamm
RE: TRACING OF TELEPHONE CALLS
80-789

to \$200.00 and the necessary equipment at the typical central office will be approximately \$1.00 per line (approximately \$10,000.00 per exchange or about \$750,000.00 for the metropolitan Washington, D. C., area). To be effective each line in the local metropolitan area must be modified. [redacted] thinks that the necessary wiring can be installed by trained personnel within two days working time after the necessary components have been assembled. He indicated that he will be glad to make a cost study for such an installation in any moderate-sized city the Bureau desires. However, it will be necessary for the Bureau to sell the idea for modification to the local operating telephone company.

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Previous memoranda have reported that the telephone companies are generally reluctant to trace telephone calls and to modify equipment to facilitate call tracing for policy and financial reasons. In spite of this, through excellent liaison with telephone companies, exceptions have been made for the Bureau. In light of this feeling in the operating companies, this matter was discussed informally with our highly placed informant in the local operating company who, as you know, has a prominent voice in forming Bell System companies' policy in matters of this type. He indicated that he felt operating companies would resist installation. He feels, from his previous discussions with the legal staff in his company, that there is a legal question whether or not the companies have a right to do the job. If the equipment is made an integral part of the central office equipment, operating companies will have to establish tariff rates for the technique. With the establishment of tariff rates, the service then becomes a matter of public record and must be made available to every subscriber demanding such services. As it is now, the companies are selective in providing call tracing facilities.

Our informant believes that if the central office equipment has to be modified for this technique and tariffs filed with established commissions, it will be necessary for the operating companies to enlarge their craftsman staffs to standby for an eventuality which may or may not occur. As it is now, a large percentage of their central offices are left unattended at night, on Saturdays, Sundays and holidays.

Our source feels that the operating companies would go along with any development which can be installed in central offices for individual cases.

Memorandum to Mr. Tamm
RE: TRACING OF TELEPHONE CALLS
80-789

This would avoid a company-wide or general installation necessitating the filing of tariffs. He feels that the companies will continue to extend to the FBI, without cost, the same courtesies in this matter as they have in the past provided extensive and permanent modifications are not required.

Referenced New York letter indicates that [] will make a study of the cost and work requirements for the installation of this new technique for a "moderate-sized" city. While the tracing of telephone calls is contrary to existing telephone company practices and we may meet resistance from operating companies, I feel that this new technique should be explored. Accordingly, the Domestic Intelligence and Investigative Divisions should submit a list of cities, in the order of preference, where they feel a cost study for installation of this technique should be made. The cities should be restricted to population areas of from 100,000 to 300,000 and to cities where investigative time will be appreciably reduced if calls can be traced. The Laboratory will then coordinate this matter with both Bell Telephone Laboratories and the field.

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We will continue to follow this matter vigorously.

P JWS

SAC, New York

November 2, 1960

REC- 23

Director, FBI (80-789)

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**TELEPHONE CALL TRACING
NUISANCE CALL TRACING - BELL LABORATORIES**

Reurlet 10-3-60, concerning information furnished by [redacted] of Bell Laboratories indicating that recent research on the nuisance call problem has provided a different approach to the over-all study which may show some promise.

In that the Bureau is interested in extending the study of this matter you should recontact [redacted] and encourage him to make a cost estimate for the installation of a nuisance call tracing system such as he has in mind. The Bureau feels that the city of St. Louis, Missouri, would provide a typical moderately sized metropolitan area into which his cost study could be extended.

In the event there are some reasons which preclude using the telephone system in St. Louis as a basis for a cost study, then you should advise him that the Bureau has no other particular area in mind and he should feel free to choose any area of moderate size for his analysis and cost study.

Advise Bureau of results of recontact with Mr. Meyers.

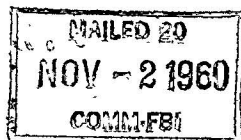
NOTE: Memo [redacted] to Mr. Tamm 10-7-60, reported Bell Laboratories progress on a nuisance call tracing system indicating that if Bureau wished to pursue this system further, Bureau should indicate a city we wanted survey made as to possible cost of installing such a system. Domestic Intelligence and Investigative Divisions were asked to submit name of any particular city where such a cost study should be made. No preference was indicated. New York should recontact [redacted] of Bell Laboratories to indicate continuing interest in problem and to ascertain approximate cost of installing a nuisance call system in an area such as St. Louis.

1 - Mr. Rosen

1 - Bufile 149-0

Tolson _____
Mohr _____
Parsons _____
Belmont _____
Callahan _____
DeLoach _____
Malone _____
McGuire _____
Rosen _____
Tamm _____
Trotter _____
W.C. Sullivan _____
Tele. Room _____
Ingram _____
Gandy _____

RLM:cay (8)



MAIL ROOM ☒ TELETYPE UNIT ☐

UNRECORDED COPY

UNITED STATES GOVERNMENT

Memorandum

b6
b7cTO : DIRECTOR, FBI
ATT: SUPV. [] FBI LABORATORY

DATE: 10/3/60

FROM: SAC, NEW YORK

SUBJECT: *Tracing of Telephone Calls*
NUISANCE CALLS - TRACING THEREOF
BELL LABORATORIES, INC.

N.Y. [] Bell Laboratories, Inc., NYC, has advised Supv. JAMES J. HILL, NYO, of the result of research with respect to tracing of nuisance calls by his company during the last summer. He stated that he felt that the Bell Laboratories has devised a method to identify the calling party's number from the called party's premises. [] stated that the method which was devised is not completely void of detection, but it is believed that chances of detection are at a minimum. The system will work on all electro-mechanical dialing systems used by the Bell companies.

The proposed tracing method is described as follows:

The tone signal of 390 cycles at a minus 60 DBM level is imposed on the called party's line and a certain frequency response circuit is attached on the DISTRICT SELECTORS of any office from which it is believed the nuisance call may emanate. When the circuits are completed the 390 cycle tone is detected on the DISTRICT SELECTOR of the office from which the call originates and, therefore, the identification of a particular line of the 10 handled by the DISTRICT SELECTOR is made manually. From this, the origin of the call is determined.

[] stated that tests conducted have indicated that tracing, using this method could be completed in from 4 to 6 minutes and the tracing could be performed satisfactorily through interoffice cable and tandem systems. [] stated that a person with good hearing could detect the 390 cycle tone but that this tone was so close to the 360 cycle harmonic associated with normal 60 cycle interference that one hearing the tone would be inclined to think it was a 360 cycle harmonic. He stated that 390 cycles was chosen inasmuch as it appeared to be a frequency that could be successfully utilized without interfering with the normal operation of the telephone.

REC-23

- ③ - Bureau
(1 - ATT: SUPV. [] FBI LAB)
1 - New York

JJH:hd
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5 OCT 9 1960

Memo 10/10/60 [] to Jamm.

No action at this time.

Let to NY
10 OCT 1960

SEVEN

[] stated that even though no figures have been assembled, he would estimate that the tone generator for the system could be built for somewhere between \$100 to \$200, and that the necessary wiring on the DISTRICT SELECTOR necessary for the tracing mechanism could be installed at a cost of approximately \$1.00 per line in a typical central office system. He added, however, that this modification could only be accomplished through a suitable arrangement with the operating company.

[] stated that it was his opinion that an installation of this type could be installed in a moderate sized city such as St. Louis or Cincinnati, by trained personnel within 2 days working time provided necessary components were assembled and ready for installation.

[] stated that he had carried out the above investigation informally and that if the Bureau desired further study on the matter, he felt that his authority would allow him to continue to study and make a detailed examination of a system for a given city of moderate size. He stated that if the Bureau would name a moderate sized city, he would be glad to extend his study to completion with respect to that city. The above mentioned facts are being brought to the Laboratory's attention for information purposes.

It is requested that NYO be advised of what additional studies may be desired and what, if any city, they would like to choose to have [] make a detailed study of.

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789)

DATE: 11/23/60

b6
b7c

FROM : SAC, NEW YORK

SUBJECT: TRACING TELEPHONE CALLS
TELEPHONE CALL TRACING
NUISANCE CALL TRACING - BELL LABORATORIES

Reference is made to Bulet dated 11/2/60.

ABR

repp

U.Y.

[redacted] Bell Laboratories was contacted with respect to the study which he has made with the above captioned matter and advised that the Bureau would like the study extended to cover a typical city such as St. Louis, Missouri, in order to determine an estimate of what it would cost to devise an effective system of tracing calls. [redacted] advised that he had been informed that in view of the national scope of any system that might be devised that the Bureau should contact [redacted] of American Telephone and Telegraph Company (A T&T), 195 Broadway, New York, New York, with respect to any further liaison on this matter.

On 11/21/60. Supervisor JAMES J. HILL and Relief Supervisor [redacted] contacted [redacted] Plant Service Engineer-Station and Special Services, A T&T Company, 195 Broadway, New York, New York. At the time of this interview [redacted] called in an assistant, [redacted] Equipment and Building Engineer. On this occasion the Bureau's need and interest in telephone call tracing was explained to the A T&T officials. It was cited that the problems inherent with this type of investigative activity usually grows out of the most hideous types of criminal activity which the Bureau handles, specifically kidnapping and extortion cases and cases of the like. It was explained to the A T&T men that the problem of tracing telephone calls in these type of cases has been under study for many years by the Bureau and that much time and effort has been made by the Bureau's own Laboratory personnel.

N.Y.

(3- Bureau (80-789) 1cc retained in Electronics Section
1- New York (

FEH:ald
(4)

no reply necessary. Lab will follow in 45 days or so
80-789-80
11/23/60

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5 NOV 25 1960

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61 DEC 8 1960

Further, in order to assure maximum results the Bureau has contacted several telephone operating companies as well as the Bell Laboratories to be sure that every feasible technique has been explored. It was explained that in spite of this great effort our position to date is still one of trying to determine a method that is technically feasible. It was pointed out that in order for any method to be of use to the Bureau it must be one that is not detected by the criminal subject of investigation. The usefulness of any method would be dependent upon the fact that the technique was not known to the criminal. It was pointed out to the A T&T people that any system developed would be used as an investigative aid.

[] advised that he became interested in the telephone call tracing problem because of the broad scope which might entail its use throughout the country within the various operating companies associated with A T&T.

[] observed that call tracing of nuisance calls had become a real and serious problem with respect to the airline companies and that this problem appeared to prevail throughout the country. He assigned [] to look into the operating problems that would be entailed in connection with call tracing. [] indicated that he will explore the problem thoroughly and will contact Bell Laboratory people with respect to the problem. Both men during the course of the conversation indicated that they were aware of work being conducted along this line by [] of Bell Laboratories.

[] stated that he would call either Supervisor HILL or Relief Supervisor [] and advise them of his findings on this matter. He extended an open invitation to the agents to return and discuss the problem further or at anytime bring Bureau officials that might be interested in discussing the problem to his office. [] manifested a most cordial manner and displayed a sincere understanding of the problems that were described to him.

The New York Office will maintain close liaison with [] and advise the Bureau of any developments.

SAC, Philadelphia (157-313)

November 29, 1960

REC-30

Director, FBI (80-789) - 8/

EX-106

UNSUB; BOMB THREAT, MILTON AREA
JUNIOR HIGH SCHOOL, MILTON, PENNSYLVANIA
10:25 a.m., 10-13-60
BOMBING MATTER

Reurlet 11-21-60, captioned as above reporting that John B. Golden, Chief of Police, NA, Milton, Pennsylvania, has arrangements to trace calls made to the school.

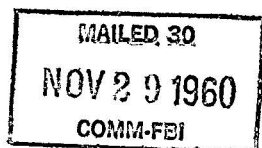
It is desired that you ascertain the type of central office switching equipment, number of telephone company personnel required to make a trace, and an estimate of the amount of time required to complete the trace. It should be ascertained whether mechanical and/or electronic aids are to be employed in effecting the trace.

Your reply should be addressed to the attention of the Electronics Section, FBI Laboratory, at an early date.

NOTE: Milton, Pennsylvania, is too far from Philadelphia to consider having a Sound-Trained Agent ascertain the above-requested information.

1 - Bufile (157-1-37)

CKC:cay (7)



Tolson _____
Mohr _____
Parsons _____
Belmont _____
Callahan _____
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Malone _____
McGuire _____
Rosen _____
Tamm _____
Trotter _____
W.C. Sullivan _____
Tele. Room _____
Ingram _____
Gandy _____

MAIL ROOM ☒ TELETYPE UNIT ☐

529
157-1-37-57
UNRECORDED COPY FILED IN

Office Memorandum • UNITED STATES GOVERNMENT

TO : Director, FBI (157-1-37)

DATE: 11/21/60

FROM : SAC, Philadelphia (157-313)

SUBJECT: UNSUB; Bomb Threat, Milton Area
 Junior High School, Milton, Pa.,
 10:25 a.m., 10/18/60
BOMBING MATTER

b6
 b7C

Tracing Telephone Calls

On 11/16/60 JOHN B. GOLDEN, Chief of Police, NA, Milton, Pa., advised SAs [] and [] that to date no suspects have been developed in this matter. He now has a setup to trace the calls that are made to the school and in the event any more threats are made telephonically, he feels he can determine immediately where the call originates. In the event a suspect is developed by Chief GOLDEN, he will immediately notify this office.

C
 2 - Bureau (157-1-37)
 1 - Philadelphia (157-313)

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REC-30

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EX-108

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*Letter
 11-29-60
 cke/ear*

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Tamm

DATE: December 7, 1960

FROM : [redacted] *DEM*SUBJECT: TELEPHONE CALL TRACING

Tolson	_____
Mohr	_____
Parsons	_____
Belmont	_____
Callahan	_____
DeLoach	_____
Malone	_____
McGuire	_____
Rosen	_____
Tamm	_____
Trotter	_____
W.C. Sullivan	_____
Room	b6
	b7C

with

My memorandum dated 11-1-60, reported that Supervisor [redacted] examined call tracing equipment developed by Tele-Signal, a private group of developers in the Los Angeles area. The Tele-Signal tracing equipment is designed to work on a particular type of telephone system used by some independent companies. Under certain limitations a call was successfully traced within a short period of time by means of their equipment. Under their tracing proposals certain equipment would of necessity have to be added to each telephone exchange in the city to be covered. The developers felt that their tracing equipment would be compatible with the Bell System.

Tracing Telephone calls

The alarm system and tracing proposals were discussed with Mr. Horace Hampton, the Laboratory's telephone contact in Washington. At Hampton's request the matter was discussed at a conference with Hampton, members of his engineering staff and [redacted] A. T. and T. Plant-Service Engineer, New York City. The discussion was limited to matters covered by Patent 2,568,342, the Tele-Signal alarm circuits and the adaptation of these circuits to call tracing. These engineers, who are among the best in the telephone industry, were generally pessimistic concerning the call tracing equipment due to limitations of certain Bell System equipment as well as for policy and financial considerations.

The Laboratory will continue to follow Tele-Signal development and to vigorously pursue the overall objectives of devising methods of utilizing electronic or electrical aids in tracing telephone calls to assisting the Bureau in carrying out its responsibilities in the investigative field.

The complete technical report covering the Tele-Signal equipment is attached hereto.

ACTION:

The Laboratory will continue to explore any and all possibilities for devising techniques to expedite call tracing with present day equipment.

80-789

Enclosure

CKC:cm (8)

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EX-113

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**TECHNICAL REPORT
TELE-SIGNAL CALL TRACING EQUIPMENT**

BACKGROUND

A practical method of rapidly locating the originator of a telephone call in kidnapping, extortion, bomb threat and similar cases has long been a matter of grave concern to the Bureau. The Laboratory is continuing to vigorously pursue the problem of tracing telephone calls.

The Electronics Section, as part of its supervisory function in this matter, instructed Los Angeles to explore the call tracing devices being developed by [redacted] Tele-Signal, 11618 Exposition Boulevard, Los Angeles 64, California. After an exchange of correspondence between the Laboratory and the Los Angeles Office, it was determined that further exploration by Los Angeles was not warranted at that time because the Sound-Trained personnel in the field do not have detailed knowledge of the Bureau's overall call tracing problem. Accordingly I proposed that the next time an engineer from the Electronics Section, familiar with the call tracing problem, is in the Los Angeles area that he would contact Tele-Signal group for additional technical information and to explore the latent proposals of their call tracing device. This proposal was approved.

On 10-17-60, Supervisor [redacted] SA [redacted] and [redacted] Los Angeles field office witnessed a demonstration of a "call tracing aid" developed by engineers of Tele-Signal. The demonstration was set up on telephone EXbrook 5-7277 at the General Telephone Company exchange in Santa Monica, California. Calls were successfully traced back to telephones EX 4-0000; EX 5-0000 and EX 4-9355, numbers selected at random by Agents. All of the tracings were completed after the calling party had hung up. The tracing was effected manually after the circuit had been locked up by the "call tracing aid" through the exchanges in 15, 7 and 5 minutes respectively. It was observed that the three exchanges had a common "C" or sleeve lead which facilitated tracing through a foreign exchange.

On 10-21-60, the developers demonstrated a Read Out device which reads out the number on a "Permanent Bridge" in a SATT (Strowger Automatic Toll

80-789-82
ENCLOSURE

Ticket Recorder) office. The last circuit of the bridge is wired to the detector or receiving device in the calling office so that the number can be read out within a matter of seconds after the calling party has hung up. The tracing equipment was connected to telephone GL 1-2379. Calls were made from telephones EX 3-0000; EX 5-8720; EX 5-7277 and EX 3-9979, numbers selected at random by Agents. Each number was identified and the number read out within a matter of four seconds after the calling party had hung up.

HISTORY OF DEVELOPMENT

The call tracing device was first developed by [redacted] the inventor of "Koiled Kord" telephone cords, as a method of transmitting various types of alarm system signals over existing telephone talking paths. Much of the engineering and central office testing was done by [redacted] and [redacted]
[redacted]

The engineers work in a building owned by [redacted], West Coast representative for Koiled Kords, a product of Whitney Blake a leading wire manufacturer. The engineers work at nights and during other off-hour periods to develop and perfect ideas for the communications industry.

The alarms systems have been accepted by the General Telephone System, the largest telephone operating company in the United States. The General company has issued Central Office Equipment Maintenance Practices A-264.055, dated 3-15-60, to cover installation and maintenance of the alarm equipment. The detecting equipment is located in the central office. The answer board covering the various alarms can be located in police departments, fire departments, secretarial answering boards or on receiving panels located in guard offices on the premises.

METHOD OF OPERATION

The Tele-Signal alarm device consists of two units, a transmitter (oscillator) located at the subscriber's telephone instrument, and a receiver or detecting device which is usually located at the telephone company's central office. The transmitter or oscillator applies a tone longitudinally on the line which signal is picked up or detected by the receivers in the central office.

The transmitting device applies an 8KC tone at -30 db longitudinally on the line using simplex-circuit consisting of two .005 one or two per cent capacitors connected in series across the subscriber's line. The mid-point of this circuit is connected through the secondary of the oscillator coil circuit to ground. The oscillator, which is stable to ± 30 or -30 cycles per second, is transistorized and uses .001 amperes from the telephone line. Battery connection was made through two 82,000 ohm resistors connected in series across the telephone line. The mid-point of this circuit is connected through a diode to the oscillator circuit and then to ground. In some instances a choke is placed in each side of the subscriber's telephone line between the transmitting device and the subset to prevent the transmitter signal getting back into the subscriber's instrument and also to maintain line balance.

A transistorized signal receiver tuned to 8KC is connected across the subscriber's telephone pair in the central office. This receiver, which is 6" high, 7" deep and mounts in a 19" rack, consists of a receiver amplifier unit and a basic unit. The receiver amplifier provides approximately 35 db gain at 8KC. The basic unit of this call tracing device is a scanner which will be discussed later. The receiver is coupled to the line so that the longitudinal transmission beyond the signal section is suppressed by a "longitudinal band eliminating filter." This filter is placed in series with the subscribers line so that transmission through the office will be reduced to a minimum and false operation of other alarms will be prevented. Coupling to the line is accomplished in the same manner as the transmitter is connected to the line. Battery for operating the receiver is obtained from the central office talking battery supply.

The basic unit in this equipment may be either a relay or stepper switch which will sound an alarm or lock up the talking path as the circuit function requires. In the case of the tracing device the basic unit includes a multi-contact stepper which scans the 75 impulses per second. This scanner can scan 50 trunks lines simultaneously at the 75 ips rate. At this speed a single scanner can scan a switch unit (10,000 lines) in approximately 3 to 4 seconds. The line will continue to scan until it "homes in" on a line or until it receives a "stop scan" pulse.

When the scanner "homes in" on a line it will ground the "C" or control lead and hold the talking path back to the calling telephone line until the ground

is removed manually. This permits either manual or electronic tracing of the call after the calling party has hung up the telephone. It should be pointed out that the calling station cannot be used to make or receive calls as long as the control lead is grounded. If the control lead is grounded for a prolonged period and the calling subscriber is prevented from making outgoing calls during the period it is entirely possible that the delay will be sufficient to alert the subject of a kidnapping case to the call tracing. It would, therefore, appear that it be imperative that the call tracing be completed within a matter of seconds after the calling station has hung up. This will require an electronic device to trace the call faster than is possible with the present manual system of tracing the calls. The called station is not disabled in any way during the call tracing period and may make or receive calls during this time.

The developers stated that the device in its present state permits locking up a line through a switchboard by having the oscillator or transmitting unit connected to an extension instrument.

The matter of tracing calls through two-wire central office trunks was discussed with engineers [redacted] They have the details of circuits worked out for a metallic two-wire central office trunk but have not considered carrier equipment central office trunking facilities. Tele-Signal has developed a circuit for FAA (Federal Aviation Agency) which uses a voice frequency tone superimposed longitudinally on the line to operate equipment over a talking path and through carrier trunk circuits. They feel that the same circuit can be used with instant device to activate tracing equipment in a foreign exchange even though carrier trunks may be used in a talking path. The oscillator frequency in the FAA equipment is controlled to a tolerance of ± 30 -or -30 cycles per second and it is picked off the line through a notch filter with a 60 cycle bandwidth. b6
b7c

The developers also feel that equipment can be designed to identify a central office trunk. Equipment of this type would eliminate simultaneous scanning of all potential call areas. They note that five relays will give them 2^5 identifying combinations which in their opinion is adequate trunk identification for central offices. This system, if used, will require one equipment path to each potential central office in the calling area. Upon receipt of the trace signal the incoming tone is identified as to the office of origin. The identifying signal is then sent over the signal path to the originating office identifying the trunk number being used. At this point a signal would be superimposed on the line to activate a scanning device which would hold up

the talking path or ground control circuit at this point. The remainder of the tracing must be completed either manually or electrically as previously mentioned.

The developers also pointed out that by having a signal path between each potential connecting office they can start scanning each office upon receipt of the tracing signal. The first scanner "homing in" on a line will send a pulse back over the signaling paths to stop all other scanners in the local and foreign exchanges as well as hold up the talking path in the calling exchange.

INSTALLATION AND COST

The developers point out that it will require no more than one hour per exchange to install their equipment in step-by-step types of central office switching equipment. This time includes the modification to the permanent bridge in SATT offices. They feel that the device will work on the new Bell System crossbar offices if the scanning device can be connected to a point where the "C" "ES" or sleeve control lead appears which they feel is usually accessible at the district juncture.

If the Tele-Signal tracing device is used, certain equipment will have to be added to central office switching systems to implement the trace. The amount of equipment needed and the time required to install this equipment will depend upon the type, size and complexity of the telephone switching equipment and the calling areas involved. To be effective it is necessary to cover every line in each calling area. This, as we have previously reported, can be an enormous job. In Washington, D.C., for instance, there are approximately one million individual telephone lines in the metropolitan dialing area. Each of the one million lines will have to be covered with detecting equipment if the system is to be effective.

It appears that the developers are optimistic in calculating the cost per exchange for their equipment. They feel that it will cost from \$250 to \$400 per exchange for all of the necessary equipment. This figure is subject to change as the cost will vary with the quantity of units ordered.

BACKGROUND OF INDIVIDUALS INVOLVED IN THE DEVELOPMENT

[] the inventor of the Tele-Signal alarm system is, according to [] the patentee of "Koiled Kord" now being produced by Whitney Blake, New Haven, Connecticut. He is a retired district manager of the General Telephone Company of California. He still maintains an active interest in the communications field working principally through [] and his group.

[] an engineer with Tele-Signal is the area representative for Koiled Kords and Whitney Blake, a large producer of telephone wire and cable. In addition, he operates a maintenance service for Walter Kidde alarm systems.

[] is senior staff engineer of General Telephone Company of California. [] has solved most of the transmission problems in connection with this development and is interested in extending the trace coverage into foreign exchanges.

[] is a PBX supervisor for General Telephone Company of California. He is knowledgeable of all types of central office equipment of the General Telephone Systems and has designed most of the features involved in the central office connections required for the Tele-Signal alarm equipment. He has a general understanding of the Bell System crossbar switching equipment and it is his opinion that their devices can be applied to the new crossbar systems.

Bureau indices are negative regarding above-listed individuals.

BELL SYSTEM CONTACT

The alarm systems and tracing possibilities of Tele-Signal equipment were called to the attention of [] our contact in the local telephone company. At [] request the matter was discussed at a conference with [] all of the C and P Plant Engineering Department and [] A. T. and T. Plant Service Engineer, New York City. [] works for [] A. T. and T. Plant Service Engineer in New York City, who has been mentioned in previous memoranda concerning

call tracing. The discussion was limited to matters covered by Patent 2, 568, 342 Tele-Signal alarm circuits and to the adaptation of these circuits to call tracing. No mention was made of Tele-Signal developers' ideas for tone identification and two-wire tracing in foreign exchanges.

The engineers at the conference, who are among the best in the telephone industry, pointed out that in the Bell System #1 and #5 crossbar offices it will be necessary to connect three wires to each district joint or connector and bring them out to a point where detecting equipment such as developed by Tele-Signal can be connected. This would require approximately 6, 000 terminations per exchange unit (100 units in the Washington, D. C. metropolitan area). In panel offices it would require some 60, 000 wire terminations and equipment that would scan each of the 10, 000 lines per switch unit.

They pointed out, as did the developers, the problem of getting the 8KC tone through trunk cable. This problem results from the using of loaded cable and carrier facilities for all central office trunk cable. They concluded that such a system is feasible but not economically practical. They were generally pessimistic concerning the possibilities of this call tracing device because of limitations of certain Bell System equipment as well as for policy and financial considerations.

They were advised of the Bureau's continuing interest in the matter of call tracing and the desirability of having a device which will assist in expediting the tracing of telephone calls. They assured of the companies' desire to be of assistance and that they will continue to cooperate with the Bureau in this matter.

CONCLUSION

It appears that the Tele-Signal equipment in its present state does not have an immediate application to the Bureau's overall call tracing problem. We will, as in the past continue to follow this and other developments to determine whether or not the development can be used to expedite tracing of calls through the vast and complex telephone company dial switching equipment. We will continue to vigorously pursue the overall objectives of devising methods of utilizing the telephone call tracing technique in carrying out the Bureau's responsibilities in the investigative field.

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789)

DATE: 12/14/60

b6
b7C

FROM : SAC, PHILADELPHIA (157-313)

SUBJECT: UNSUB; Bomb Threat, Milton Area
Junior High School, Milton, Pa.
10:25 a.m., 10/18/60
BOMBING MATTER

ATTENTION: ELECTRONICS
SECTION - FBI LABORATORY

Re Bulet to PH 11/29/60.

JOHN B. GOLDEN, Chief of Police, NA, Milton, Pa., advised the police operates on a PBX switchboard with four lines. The Milton Area Junior High School has the same type of switchboard. Whenever a call is received concerning a bomb threat, the Desk man switches the line of the incoming call to the hold position, and calls the wire chief of the Milton exchange of Bell Telephone on another line. By placing the switch on the hold position it locks the calling line, switching control from the party calling to the party being called. The wire chief can ascertain the origin of the caller by tracing the line to the terminal and then calling the Branch Manager of Bell Telephone Company in Sunbury, Pa. The chief stated a device similar to a clothes pin is placed on the lines of the school which has been threatened. He said it only takes one employee to his knowledge to trace the call at the telephone exchange and the call can be traced in about three minutes.

On 12/12/60, [redacted] Milton exchange of the Bell Telephone Company, stated his exchange has step by step switching equipment, which is called in telephone circles as 355A, and is standard equipment in most exchanges. He said it only takes one telephone company employee to trace the call regardless of the size of the office. The time to make the trace would vary with the size of the

- 2 - Bureau (80-789) KC LAB-7318
1 - Philadelphia (157-313) 12/19/60 Ram

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No Reply Necessary

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exchange. He estimated that the call could be traced in small exchanges in cities up to 75,000 to three to five minutes. Cities of 75,000 or more the call could be traced by one employee in five to 15 minutes. He said he uses a very simple device, which is called an external movable resistor, which he places across the tip and sleeve of the line below the connector, which changes from calling party to called party control. The external movable resistor costs about 50 cents each and seven resistors, placed below each connector on a shelf, can tie up 100 telephone lines. He explained the resistor supra, is placed across the tip and sleeve of the line which has received threats, and therefore does not entail extensive research by the party being harrassed to definitely ascertain where the call originated, so long as party being called does not hang up the receiver. His exchange is utilizing the external movable resistor for the Police Department, Milton, Pa., and the District Attorney's Office in Northumberland County, Pa.

The above information was furnished confidentially to SA [] and [] does not want his name divulged outside of the Bureau under any circumstances.

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UNITED STATES GOVERNMENT

Memorandum

TO : Director, FBI
Attention: FBI Laboratory

DATE: 1-10-61

FROM : SAC, Newark

SUBJECT: TELEPHONE TRACING EQUIPMENT

0 TRACING TELEPHONE CALLS

J At a meeting of Police Officers on 1-4-61, at Collingswood, N.J., JOHN E. HUNT, NA, Sheriff of Gloucester County, exhibited an advertising folder from Macson, Inc., Post Office Box 215, Friday Harbor, Washington, Manufacturers of Communications Controls.

The folder advertised for sale the Macson MS 513 Automatic Call Holder, described as follows:

"Macson proudly presents a precision built, fully transistorized instrument, which for the first time permits the telephone industry to trace calls without holding the caller on the line. The Macson Automatic Call Holder holds the line open.

"Law enforcement agencies will hail the introduction of this device which will tremendously facilitate the apprehension of parties placing extortion calls, bomb threats, nuisance calls, false alarms, etc.

"Only Macson has it. While production is somewhat behind demand at this moment, the completion of improved production facilities is expected to enable us to produce any demand which is expected to be great."

The circular invited inquiries for further information and engineering data. It also stated that it works on all standard telephone equipment.

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[redacted] a Special Agent of the Pennsylvania Bell Telephone Company, who was present at the meeting, stated that if what the circular represents is true, then the Macson Company has more information than the Bell system.

[redacted] of the New Jersey Bell Telephone Company Plant Department, said that he knew nothing of such equipment.

2 - Bureau
1 - Newark
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62 JAN 31 1961

Letter to Seattle 1-25-61 ccc:bu
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SAC, Seattle

January 25, 1961

Director, FBI (80-789)

0 TRACING TELEPHONE CALLS

CALL TRACING EQUIPMENT

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The Bureau has received information that Macson, Incorporated, Post Office Box 215, Friday Harbor, Washington, is producing an "Automatic Call Holder" designed to hold a telephone call until a trace can be completed. Their circular indicates that the equipment will facilitate the apprehension of parties placing extortion calls, bomb calls, etc.

It is desired that you have an experienced Sound-Trained Agent determine the types of telephone company central office switching systems that this device has been successful in transferring the supervision of a call from the calling to the called party. The modifications, additions, wiring changes and the length of time to install the equipment should be ascertained. It should also be ascertained whether or not this equipment will trace a call that has been routed through several offices and if so, what equipment must be installed in the intermediate offices. All available technical information and engineering data should be included with your reply.

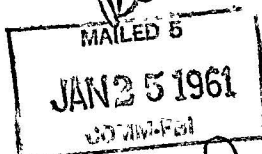
Since this equipment may have possible uses in connection with official investigations, you should impress on the Macson officials that it would be appreciated if this inquiry is afforded confidential treatment. 3

This matter should be afforded prompt attention and your reply forwarded to the attention of the FBI Laboratory.

NOTE: Bureau indices negative. Friday Harbor is approximately 80 miles from Seattle. It is believed desirable to have an experienced Sound-Trained Agent make this inquiry because of the technical nature of the interview.

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CKC:pcc (6)

Tolson _____
Mohr _____
Parsons _____
Belmont _____
Callahan _____
Conrad _____
DeLoach _____
Malone _____
McGuire _____
Rosen _____
Trotter _____
W.C. Sullivan _____
Tele. Room _____
Holloman _____
Gandy _____



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80-789-84

10 JAN 26 1961

62 JAN 31 1961

MAIL ROOM ☒

TELETYPE UNIT ☐

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI
ATTN: FBI LABORATORY

DATE: 2/15/61

b6
b7C

FROM: SAC, SEATTLE (66-95)

SUBJECT: *Tracing Telephone Calls*
CALL TRACING EQUIPMENT

ReBulet 1/25/61.

On January 11, 1961, the matter of the Macson automatic call holder was discussed with engineers of the Pacific Telephone Northwest, Seattle, who advised at that time that full details were in the possession of AT&T, New York City, with whom it was assumed the Bureau had liaison.

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mz
[redacted] Engineer, who heads the customer equipment division for Pacific Telephone Northwest (Bell), said that the equipment would not function as a call holder in any but step-by-step equipment, and then only when there was no trunking between central offices. It was said that it would not operate on panel or cross-bar equipment.

Purportedly, the equipment, costing approximately \$1,700.00 per unit, provides a means of holding a switch train in an operated condition until manually released, even though the calling party has cradled his handset. Upon receiving a call, the called subscriber would depress the button of an oscillator unit located near the instrument for at least one second and then release. The interval of one second is given due to the necessity for a slight delay in operation to eliminate false seizure caused by line noise and similar conditions. The tone provided by the oscillator operates a relay which puts a ground on the third wire of the final connector switch through which the call has been completed. The ground is in parallel or

- ③ - Bureau (Encl. 8)
- 2 - Seattle
- RFB/nch
- (5)

REC-46

80-789-85
4 FEB 16 1961

EX-136

ENCLOSURE

No reply necessary

*Enclosures removed and retained in
Electronics Section*

60
51 FEB 27 1961

SE 66-95

or multiple with normal ground on the "C" lead furnished by the connector switch. When the calling party hangs up his instrument, the ground applied to the "C" lead by the unit is said to hold the switch train in the operated condition.

It was not believed by the Bell engineers that any patent application had been filed by Macson. Copies of the data in the possession of the local people are attached hereto.

Friday Harbor, where Macson, Inc., is located, is in the San Juan Islands at the northern end of Puget Sound, and is reached by about two and a half hours travel by auto and boat. If the Bureau desires further information on this device, it is suggested that Seattle be instructed to make personal contact with the manufacturer.

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI

DATE: 3/16/61

FROM : SAC, DENVER (66-18) ATTENTION: FBI Laboratory
Radio and Electrical Section

SUBJECT: TRACING OPERATIONS

Telephone Calls
CALL TRACING 80-789

Information concerning use of the 4A Trouble Recorder Card concerning COORNAP has been previously furnished to the FBI Laboratory.

am This basic system was used on March 3, 1961, to good effect in the apprehension of two fugitives in the case entitled "GARY DUNFEE - FUGITIVE; J. B. COMBEE - FUGITIVE; ITSP," Tampa origin.

The Tampa Division advised subjects had made telephone calls to three different telephone subscribers in the Cyprus 3 Exchange at Eagle Lake (Winter Haven), Florida, during the evening of March 2, 1961, and had said they were calling from Denver and would call one of the numbers again at 2:00 P.M., Eastern Standard Time, on March 3, 1961.

10 Telephone company employees placed a "trap" in the 4A circuits at the Denver Toll Center so that any call placed from Denver to the Cyprus 3 Exchange at Eagle Lake, Florida, (813 plus 293) would eject a trouble recorder card. At 3:07 P.M. on March 3, 1961, a call was directed to Cyprus 3-9232, the Hide-A-Way Bar at Eagle Lake, Florida, which had been called by one of the subjects the night before. Routing information indicated the above call was arriving at the Denver Toll Center on Toll Tandem 1863, which is identified as a trunk from the East Denver Telephone Exchange. The Chief Operator at the East Denver Exchange was contacted by the Chief Special Agent of the Telephone Company and asked to locate the toll ticket involved. The

no reply necessary. 1cc Retained in Electronics Section, OKC

③ Bureau
1 - Denver

REC-39

80-789-86
3/21/61

17 MAR 21 1961

EAS:il

(4)
63 MAR 24 1961

EX-110

SEVEN

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DN 66-18

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toll ticket indicated the call was coming from a [redacted] at EMpire 4-2681, Unit 2. [redacted] was a known alias of one of the subjects. A check of Telephone Company files by the Chief Special Agent resulted in obtaining the address listed to EMpire 4-2681, a motel in Aurora, Colorado, a suburb of Denver, and Agents were immediately dispatched to this location, where subjects were apprehended.

While the system outlined above can only be used when certain conditions exist, it proved to be most helpful in this particular case, and again demonstrates the speed with which the 4A toll switching system can be used in identifying a particular call.

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789)
(ATT: FBI LAB)

DATE: 4/3/61

FROM : SAC, NEW YORK

b6
b7C

SUBJECT: ~~TELEPHONE CALL TRACING~~
~~NUISANCE CALL TRACING - BELL LABORATORIES~~

ReBulet, 11/2/60, and NYlet to Bu, 11/23/60.

On 3/28/61, Supervisor JAMES J. HILL, and Relief Supervisor, [redacted] recontacted [redacted] Plant Service Engineer - Station and Special Services, American Telephone and Telegraph Company (A T & T), 195 Broadway, New York, New York.

[redacted] advised that since the last meeting with the agents, a thorough study of call tracing had been conducted by [redacted] whereupon [redacted] and [redacted] (both engineers within A T & T), were called into the conference. Discussion centered around technical problems encountered by the vast multiple central office systems employed within large cities. [redacted] explained that with present switching equipment tracing problems appear economically infeasible, inasmuch as any possibilities would entail rewiring of every central office without considering tandem setups used in the largest cities.

Holding up the calling party's equipment in any single central office system appears relatively simple with step-by-step or #5 crossbar switching equipment, but within the large city complex, only two types of systems may prove successful:

First, the Automatic Message Accounting (AMA) or Automatic Number Identification (ANI) billing systems which employ equipment for direct toll dialing and the recording by tape perforation for accounting thereof. With certain wiring innovations it would appear feasible, by constant scanning of the tape originating from the called party's equipment, to trip relays which would cause an equipment holdup of the calling party's circuit, thus permitting central office switchmen to trace the address of the drop number.

1cc + Enclosure retained REC-35
no reply necessary -
③ Bureau (80-789) L.A. 100
(ATT.: FBI LAB.) (ENCLOS. 3)
1- New York

RES:ntc
(4)

80-789-87
3 APR 8 1961

ENCLOSURE

61 APR 20 1961

EXP. PROC.

SEVEN

TRACING TELEPHONE CALLS

The AMA system according to A T & T engineers, would be workable only after nationwide installation of the system. It was explained that this system is only in the embryo stages and plans for countrywide adoption are in the distant future. The message unit system employed within NYC and other major cities, would negate tracing unless it is replaced by either of the automatic systems described above.

The second method of tracing would become feasible with completion of nationwide installation of electronic control systems, now under design by Bell Labs.

A T & T officials were unanimous in their praises of any such installation emphasizing the elasticity of electronic setups including the relatively simple tracing capabilities of such systems.

Plans for Nationwide installation of such electronic systems appear in the very distant future and is not considered as a solution for present needs.

[] discussed the "Black Box" method of tracing presently being widely publicized by the "Macson" Inc., Electronic Telephone Equipment, P.O. Box 215, Friday Harbor, Washington.

[] produced correspondence from "Macson" advertising their MS-513 Automatic Call Holder, copies of which are enclosed. [] explained that this system encompasses the use of an artificial signal audible to the calling party and is only practical in the single plant (one central office) operation utilizing step-by-step equipment.

[] further stated the "Black Box" idea is not an innovation in telephone tracing. He, along with engineers [] felt that the advertised results of such equipment were misleading and solicitations for use of this equipment to police departments are made without explaining its limitations.

[] indicated that A T & T will continue to explore the possibilities of call tracing and constant liaison with Bell labs will be maintained with respect to the problem. Any findings in this matter will be conveyed to the Bureau by [] [] through Supervisor HILL or Relief Supervisor []

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SAC, Pittsburgh (9-1548)

June 16, 1961

Director, FBI (9-38276)

aka
EXTORTION

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Reurlet 5-29-61, in captioned matter, reporting the identification of certain telephones calling CEdar 2-3484 listed to the mother of the victim in instant case. A review of these numbers reveals calls originating from a CEdar 3 exchange, one of which was the telephone number at subject's residence.

It is desired that you determine what alterations were made to the exchange and/or subscriber equipment to effect the calling number identification. In addition, ascertain whether or not the CEdar 3 exchange is considered a foreign exchange as far as the victim's service is concerned. If CEdar 3 is considered a foreign exchange, determine how the call was traced through the foreign exchange.

Your reply should be addressed to the attention of the FBI Laboratory at an early date.

NOTE: Informants in telephone company installed a "trap" on victim's telephone line to ascertain numbers of calling telephones. A review of the file indicates that no calls could be traced to Ohio as it was "across the state line." The file does not indicate whether or not calls were traced to a foreign exchange. It is the general practice in the telephone companies to consider all exchanges excepting the exchange in which the call terminates as a foreign exchange. With this premise, it would appear that CE3 is foreign with respect to victim's CE2-3484 telephone number. The use of the "trap" in tracing calls is known to the Laboratory. The technique used in instant case may contain certain modifications peculiar to the Wheeling, West Virginia, area that may be employed with similar switching systems in other areas.

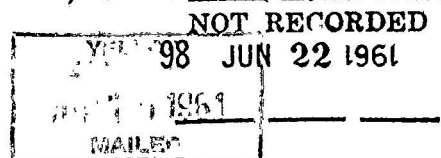
① - Bureau file 80-789 (Tracing Telephone Calls)

CKC:pcc (7)

Tolson _____
Belmont _____
Mohr _____
Callahan _____
Conrad _____
DeLoach _____
Evans _____
Malone _____
Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Ingram _____
Gandy _____

MAIL ROOM ☐

TELETYPE UNIT ☐



ORIGINAL FILED IN

UNITED STATES GOVERNMENT

Memorandum

Tolson _____
 Parsons _____
 Mohr _____
 Belmont _____
 Callahan _____
 Conrad _____
 DeLoach _____
 Evans _____
 Malone _____
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 Trotter _____
 W.C. Sullivan _____
 Tele. Room _____
 Ingram _____
 Gandy _____

TO : Mr. Conrad

DATE: May 3, 1961

b6

b7C

FROM :

[Redacted]

TRACING Telephone calls

SUBJECT:

TELEPHONE CALL TRACING DEVICE

Bureau is in receipt of a note referred from Office of Honorable Warren G. Magnuson, U.S. Senate, attaching a copy of a letter to the Senator from [Redacted] Secretary of Macson, Inc., Friday Harbor, Washington, referring to a brochure on a telephone call tracing device which the Macson Company is attempting to sell to the telephone industry, law enforcement, airlines, etc. The note requests comment on the attachment.

The attachment concerns a device which the manufacturer claims will trace telephone calls regardless of the type of telephone exchange equipment which is used. Bureau confidential telephone company sources have advised that the equipment can only be employed on certain types of telephone exchange equipment and therefore, cannot be universally adopted as a call tracing aid. In addition, from the Bureau's investigative standpoint, it is unsuitable because it superimposes an audible tone signal on the subscriber's line whenever an attempt to trace a call is made. Inquiries by Laboratory have brought forth evaluations of the equipment by the Pacific Telephone Company, Chesapeake and Potomac Telephone Company and Bell Laboratories. The device sells for approximately \$1700. Additionally, the equipment is required to be installed within the telephone company exchange building in order for the equipment to function. Accordingly, the telephone company would have to agree to the use of such equipment by any purchaser.

In summary, the Bureau is familiar with the equipment, the equipment cannot be universally applied across the country, the equipment has certain inherent drawbacks such as an audible tone, in addition to its non-universal application and requirement for accessory equipment. Since this is a commercial product, the Bureau by reason of long standing practice cannot comment favorably or unfavorably on the merits of this device.

Enclosure

- 1 - [Redacted]
- 1 - Mr. DeLoach
- 1 - Mr. Mohr

RLM:jjd (8)

56 JUL 26 1961

EX 100

REC-62

80-789-88

JUL 19 1961

Memorandum to Mr. Conrad
Re: TELEPHONE CALL TRACING DEVICE

The brochure material is to be returned to Senator Magnuson's Office per request. Above matter coordinated with Mr. DeLoach's Office.

RECOMMENDATIONS:

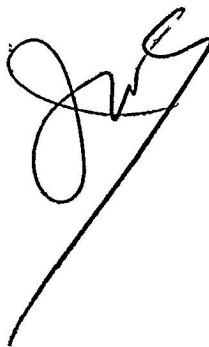
(1) Since commercial equipment is involved, Bureau should make no comment as to the merits of the Macson telephone call tracing device.

(2) The matter should be referred to Mr. DeLoach's Office for appropriate handling with Senator Magnuson's Office. It is noted that the telephone companies' evaluation of this equipment was given to the Bureau in strict confidence and this confidence should be protected in any discussions concerning this matter.

Returned

7/6/61

Dsk



Handled with
[redacted] Adm
Asst to Sen Magnuson
7/6/61
Dsk

b6
b7c

United States Senate

April 27, 1961

Respectfully referred to
Director
Federal Bureau of Investigation
Department of Justice

for such consideration as the communication
herewith submitted may warrant, and for a report
thereon, in duplicate to accompany return of
inclosure.

By direction of

Warren G. Magnuson
WARREN G. MAGNUSON, U. S. S.

GPO 16-73127-1

EX-100

REC-62

ENCLOSURE

80-789-88

13 JUL 19 1961

Mr. Tolson ✓
 Mr. Parsons ✓
 Mr. Belmont ✓
 Mr. Callahan ✓
 Mr. Conrad ✓
 Mr. DeLoach ✓
 Mr. Evans ✓
 Mr. Malone ✓
 Mr. Rosen ✓
 Mr. Tavel ✓
 Mr. Trotter ✓
 Mr. W.C. Sullivan ✓
 Tele. Room ✓
 Mr. Ingram ✓
 Miss Gandy ✓
one [unclear]

MAY 1 1961
 30X

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CW
 ENCLOSURE
 Lit. 361
 5-26-61
 [unclear]

Memo
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app

COPY

____ MACSON, INC. ____

ELECTRONIC TELEPHONE EQUIPMENT

P. O. Box 215
Friday Harbor, Washington

April 24, 1961

Sen. Warren G. Magnuson
Senate Office Building
Washington 25, D. C.

Dear Mr. Magnuson:

Inclosed is information on our ~~MS-513, Automatic Call Holder~~. *Telephone call TRACING Device*

We have received a tremendous response from our advertisement, from Police Departments and Telephone Companies on this piece of equipment, but as yet we have made very few sales.

We feel that this is a product of immense value to the telephone industry and law enforcement agencies, and any assistance that you may offer in placing this information with persons concerned would be greatly appreciated.

Very sincerely,

— MACSON, INC.

Secretary

1 Incl:

*Note: Brochure copies
not necessary since
material already in
Bufiles. Sen.*

b6
b7C

COPY
ENCLOSURE

80-789-88

SAC, Buffalo (79-69)

August 2, 1961

Director, FBI (80-789)

b6
b7c

TRACING TELEPHONE CALLS

Reference is made to the report of SA [redacted] dated 6-27-61, captioned "Andrew Charles Ashley, aka, Missing Person," reporting the tracing of a telephone call made to the residence of [redacted] from a pay telephone in Smither's Drug Store, 2339 Main Street, Buffalo.

It is desired that you ascertain the number of telephone company exchanges involved, the type of central office switching equipment, the number of telephone company personnel required to make the trace and an estimate of the amount of time required to complete the trace. It should be ascertained whether mechanical and/or electronic aids were employed in effecting the trace.

Your reply should be addressed to the Bureau, attention FBI Laboratory.

NOTE: The Buffalo Office made arrangements with the telephone company to trace calls received at the victim's home. A call was traced to the telephone booth in Smither's Drug Store. Agents through questioning employees in the drug store determined that [redacted] made the call from the booth in the drug store. [redacted] admitted making the call and has admitted abducting two small children and abducting and abandoning victim on edge of Delaware Park Lake. Victim's body was found in this lake.

- 1 - Mr. Rosen (Attention: [redacted] Room 5718)
1 - Bureau 79-28175 (ANDREW CHARLES ASHLEY, DECEASED, MISSING PERSON)

CKC:pcc (8)

REC-26

REC-26
80-789-89
19 AUG 4 1961

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Conrad _____
DeLoach _____
Evans _____
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Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Ingram _____
Gandy _____

MAIL ROOM ☐ TELETYPE UNIT ☐

56 AUG 8 1961

UNRECORDED COPY FILED IN 79-28175

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789)
(ATTN: FBI LAB)

DATE: 8/8/61

FROM : SAC, BUFFALO (79-69)

b6
b7C

SUBJECT: TRACING TELEPHONE CALLS

ReBulet to Buffalo, dated 8/2/61.

[redacted]
New York Telephone Co., Buffalo, N. Y., advised SA [redacted] on 8/7/61, that on 6/25/61 (a Sunday) there were seven exchanges in Buffalo, all in different buildings throughout Buffalo, and that in three of them there were two men on duty, one a switchman and the other a testboard operator. In order to cover all seven, four more switchmen were called in to assist the four testboard operators who were working alone. In all, there were fourteen men alerted for calls to the ASHLEY residence (TF 6-1987E). The only type of switching equipment in use over the entire city is Panel and Cross Bar.

When the call was made to the ASHLEY residence at 12:01 PM, on 6/25/61, it was traced to TF 6-9573, assigned to Smither's Drug Store, 2339 Main St., Buffalo, N. Y. The only exchange involved was the Main Street exchange which covers TF-2-TF-9 prefixes. Because of the fact that the call originated in the TF 6 bank and the called party (ASHLEYS) was also in the TF 6 bank, three to four minutes were needed to make the trace and only one employee needed. The switching equipment on the TF 6 bank is Panel equipment. No electronic equipment was used in the trace.

[redacted] advised that if the call had gone through two or more exchanges it would have been almost impossible to trace. Under the short handed conditions ordinarily existing on any other Sunday.

Enc 14
2 - Bureau
1 - Buffalo

JDK:ARS
(3)

REC- 29

80-789

AUG 14 1961

56 AUG 16 1961

11/17/61

77
AIRTEL

TO: SAC, St. Louis
FROM: DIRECTOR, FBI

LONG-DISTANCE TOLL CALLS
FROM PAY STATIONS

TRAINING OF TELEPHONE CALLS

At the recent conference held by the Attorney General in St. Louis, one of the individuals in attendance indicated that it is not possible to obtain pertinent records of long-distance telephone calls made from pay stations.

The Laboratory has contacted Washington, D. C., telephone company and has been advised that records indicating the date of a call, the number called, duration of the call are retained for all toll calls made from telephone pay stations. According to telephone company officials, these records are maintained for 12 months and are filed under the number of the pay station from which the call was made.

Immediately contact appropriate sources in the telephone company servicing the St. Louis area and determine whether there is any situation peculiar to that telephone company which precludes the maintenance of such records.

For your additional information, the Washington, D. C., telephone company states it is not possible to make direct dial long-distance telephone calls from a pay station without the call being passed through the long-distance operator who records the information as to the number called, duration of the call and charges. The Washington, D. C., telephone officials state that this information is necessary in order for the telephone company to discharge its obligations with reference to local, state and Federal taxes as well as to the collection proceeds from such toll calls to long lines of AT&T for the use of its facilities.

Submit airtel to reach the Bureau no later than close of business 11/21/61 setting forth results of your inquiries.

McA:rap
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RECEIVED - BUREAU

REC-46

19 NOV 20 1961

MAIL ROOM ☐ TELETYPE UNIT ☐ 10

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COMM-FBI

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Evans _____
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Sullivan _____
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Trotter _____
Tele. Room _____
Ingram _____
Gandy _____

FEDERAL BUREAU OF INVESTIGATION
U. S. DEPARTMENT OF JUSTICE
COMMUNICATIONS SECTION
NOV 2 1 1961
TELETYPE

Mr. Tolson _____
Mr. Belmont _____
Mr. Mohr _____
Mr. Callahan _____
Mr. Conrad _____
Mr. DeLoach _____
Mr. Evans _____
Mr. Malone _____
Mr. Rosen _____
Mr. Sullivan _____
Mr. Tavel _____
Mr. Trotter _____
Tele. Room _____
Mr. Ingram _____
Miss Gandy _____

b6
b7c

Tracing of Telephone

URGENT 11-21-61 8-02 *calls* PM EMR

TO DIRECTOR, FBI

FROM SAC, ST. LOUIS /66-66/ 1P

*1-cc
1541*

LONG DISTANCE TOLL CALLS FROM PAY STATIONS. REBUAIRTEL
NOVEMBER SEVENTEEN AND MY AIRTEL NOVEMBER TWENTY, LAST.
OUR PREVIOUS UNDERSTANDING THAT RECORDS OF LONG DISTANCE
CALLS FROM PAY STATIONS DID NOT REFLECT NUMBER CALLED
RESULTED FROM ACTUAL CHECK OF CALLS FROM A PARTICULAR PAY
PHONE. RECORDS IN THIS INSTANCE DID NOT SHOW NUMBER
CALLED. A REPRESENTATIVE OF SOUTHWESTERN BELL TELEPHONE
COMPANY EXPLAINED SUCH NUMBERS NOT RECORDED, AS NOT NEEDED
FOR BILLING PURPOSES BECAUSE MONEY ALREADY COLLECTED AT
TIME CALL COMPLETED. UPON PERSONAL CHECK WITH OFFICIALS
OF SOUTHWESTERN BELL TELEPHONE COMPANY AND AT AND T, ST. LOUIS,
IT HAS BEEN DETERMINED THE SYSTEM FOLLOWED IN RECORDING
LONG DISTANCE CALLS FROM PAY PHONES IN THE ST. LOUIS AREA
IS THE SAME AS IN ALL OTHER AREAS. THE NUMBER CALLED FROM
ALL PAY PHONES IS RECORDED.

R

EX-115 REC-43 80-789-92

NOV 29 1961

END AND ACK PLS

WA 9-06 PM OK FBI WA WS

TU DISC

NOV 30 1961

708 E

F B I

Date: 11/20/61

Transmit the following in PLAIN
(Type in plain text or code)Via AIR MAIL AIRTEL
(Priority or Method of Mailing)b6
b7C

TO: DIRECTOR, FBI
FROM: SAC, ST. LOUIS
SUBJ: LONG-DISTANCE TOLL CALLS
FROM PAY STATIONS

*Tracing of
Telephone Calls
1-1541*

On 11/20/61, [redacted] Special Agent, Southwest Bell Telephone Company, (SWBTCO), advised SA PHILLIP M. KING, concerning the SWBTCO's ~~system of maintaining records~~ of long-distant calls from a pay phone.

In the first instance, a call made from a pay phone collect will necessitate the use of an operator requesting the number from which the caller is calling as well as the number to which he is calling. This information is recorded on tape and later transferred to an IBM punch card. The information on the card will show the area code number of the station calling, the number from which the call was made, the number and city to which the call was placed, as well as the length of the call and the charges for same.

In the second instant in which a call is made from a pay, station-to-station, on a prepaid basis, the following procedure is utilized by the telephone company:

The caller contacts the operator and then normally advises, if he knows, the area code number and the number he is using. The operator then makes this connection and as soon as the connection is made, then the operator switches back to the caller requesting the number from which he is calling and the amount of toll due for the call. The operator then listens to the money that falls into the telephone. This is accomplished by a different sound for each coin, namely, quarters, dimes, and nickels.

3 - Bureau
1 - St. Louis
PMK:clh
(4) C C - Wick

REC-43 EX-115

NOV 29 1961

Approved: *[Signature]*Sent *N/E*

M

Per

Special Agent in Charge

67 NOV 30 1961

SL --

In connection with the money requested by the operator, this charge includes all taxes. After the money falls through, the operator then makes the connection. When the IBM cards for the toll calls of a pay station are then obtained, they are supposed to reflect the area code number, the telephone number from which the call was made, the city and number to which the call was made, as well as the amount of money paid on the call and the amount of time used in the call.

However, recent checks by this office of prepaid toll calls made from a public phone reflects all of the above information with the following exception, namely the number to which the call was made is NOT RECORDED on the IBM card.

On 11/21/61, toll tickets on a public phone located in a building used by a St. Louis subject in 165- violation will be examined by [] and SA []. At this time it will be determined if certain code punches are made in the card and the card is then placed on top of a master card which will reflect the telephone number to which the call is made. The Accounting Section will then be contacted by [] to determine whether or not the company will follow the same manner of recording as mentioned in referenced airtel or whether they will continue to record as set forth in instant communication without recording the number called.

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On 11/22/61, the Bureau will be advised of the results. It is noted [] advised that possibly the operator handling the number checked as mentioned above is not aware of the procedure to forth the number called in the other city.

Further, for the information of the Bureau, it is noted that information has been received by this office that the gamblers in utilizing the pay phone in making long-distant calls to obtain the "line", are now obtaining pay station numbers having the same exchange as the number from which they are calling and when the operator requests the number from which they are calling, they furnish the other number having the same exchange. [] said if this system is utilized, it is very unlikely that the telephone company would be aware of this situation unless a series of incidents occurred where there was an overcharge and the operator contacted the number furnished by the caller and ascertained it was from another telephone.

The Attorney General

November 27, 1961

Director, FBI

- 1 - Mr. Belmont
- 1 - Mr. Evans
- 1 - Mr. Stanley
- 1 - Mr. McAndrews
- 1 - Mr. Stefanak

**LONG-DISTANCE TOLL
CALLS FROM PAY STATIONS**

With reference to practices and procedures in effect for the recording of long-distance toll calls in the St. Louis area, we have ascertained from officials of the telephone companies serving St. Louis and environs that the system followed in recording long-distance toll calls from pay stations in this area is the same as followed in all other areas. That is, the records of such calls list the number called, the number of the pay station from which the call is made, duration of the call and the charges.

The above is being furnished for your information.

- 1 -
Deputy Attorney General
- 1 - Assistant Attorney General

b6
b7C

- 1 - Laboratory Division
- 1 - Mr. Rosen

NOTE: The above is being forwarded to the Attorney General in view of his expressed interest regarding the nature of the records kept on toll calls made from pay stations in the St. Louis area. Attorney General's interest was expressed during recent trip to St. Louis.

RECEIVED NOV 28 1961

NOV 27 1 09 PM '61
REC'D-READING ROOM
FBI

NOV 27 1961
COMM-FBI

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RECEIVED NOV 28 1961

REC-43

80-222-94

NOV 28 1961

NOV 30 1961

b6
b7C

SAC, San Francisco (66-3752)

January 3, 1962

REC-124
Director, FBI (80-789) - 95

TOLL-FREE TELEPHONE DIRECT
DIALING DEVICE -
RESEARCH MATTERS -
SAN FRANCISCO DIVISION

Reference is made to your letter dated December 13, 1961, captioned as above, in which you state that Chief Special Agent [redacted] Pacific Telephone and Telegraph Company, Sacramento, California advised that he would make the captioned device available to the FBI Laboratory for examination. It is desired that you arrange for the Laboratory to examine this device after it has served its purpose with the local operating company. The unit will be returned to your office upon completion of the examination.

The Bureau appreciates your interest in bringing this matter to the Laboratory's attention. You should convey to [redacted] the Bureau's appreciation for furnishing the information concerning captioned device and his interest in making the equipment available for examination.

CKC:cf (6)

NOTE: Captioned equipment was made by an engineering student for making free long distance telephone calls. The operating telephone company detected the use of the device through examinations of automatic machine accounting tapes and after intensive investigation discovered the location of the equipment. The student was co-operative with company officials and turned over the equipment to them for retention. It does not appear that the company will prosecute the designer.

Tolson ☒
Belmont ☒
Mohr ☐
Callahan ☐
Conrad ☐
DeLoach ☐
Evans ☐
Malone ☐
Rosen ☐
Sullivan ☒
Tavel ☐
Trotter ☐
Tele. Room ☐
Ingram ☐
Gandy ☐

MAIL ROOM ☐ TELETYPE UNIT ☐

JAN 2 - 1962

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI

DATE: December 13, 1961

FROM : SAC, SAN FRANCISCO (66-3752)

SUBJECT:

~~TOLL-FREE TELEPHONE DIRECT
DIALING DEVICE -~~

RESEARCH MATTERS -
SAN FRANCISCO DIVISION

Tracing Telephone Calls

ATTN: FBI LABORATORY

There is being enclosed herewith two copies of a Telephone Company report and 4 photographs of a device which can be used with a telephone to make toll-free long-distance telephone calls to direct distance dialing points.

b6
b7C

Chief Special Agent [redacted] Pacific Telephone and Telegraph Company, Sacramento, California, furnished the reports to SA CHARLES F. BRUSCH and advised him that in the event the FBI Laboratory desired the device for study purposes or any additional technical information concerning the device that he was certain it could be secured.

The reports are self-explanatory and are furnished for the Bureau's information.

CCs:

2 - Bureau (ENCLS. 6)

1 - San Francisco

WHW:pp

(3)

ENCLOSURE
(As per
detached in Electronics
Section 12/13/62)

Letter
1-3-62
CKC:cf

REC-12

EX-115

DEC 20 1961

80-789-95
COMSEC
SEVEN

UNITED STATES GOV

Memorandum

TO : Mr. Conrad

DATE: December 14, 1961

FROM : SUBJECT: TRACING TELEPHONE CALLS

Tolson	✓
Belmont	✓
Mohr	✓
Callahan	✓
Conrad	✓
DeLoach	✓
Evans	✓
Malone	✓
Rosen	✓
Sullivan	✓
Tavel	✓
Trotter	✓
Tele. Room	✓
Ingram	✓

From time to time the Bureau switchboard receives calls from unidentified individuals and as soon as the Bureau operator identifies the called number as FBI, the calling subscriber will wait a second or two and then hang up the telephone without talking to the Bureau operator. This is time consuming and is quite annoying. When these calls persist at a frequent rate, the operators make a practice of preparing a log of such calls.

This matter has been discussed with high level informants in the local operating company who have advised that they will be very happy to cooperate with the Bureau in verifying the sources of these calls if the name of a logical suspect is furnished the company together with his telephone number. They did not indicate what procedure would be used to definitely determine that the calls are originating from the suspect number but did state that they would be able to tell this Bureau whether the calls were made from this number and the time of the call will be logged within a one-hour period. They have no facilities to identify the exact minute the call was made. Arrangements for this should be made through the Laboratory and the reply will be furnished to the Laboratory by our informants in the company. The telephone company will take no action in the matter and expects the Bureau to protect the company's interest in disclosing such activity when it is discussed with the suspect.

ACTION:

For information in response to request of Mr. Tavel.

- 1.- Mr. Belmont
- 1 - Mr. Tavel
- 1 - Mr. Mohr

80-789

CKC:pcc (7)

EX-108

REC-5

13 DEC 28 1961

58 JAN 3 1962

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Conrad

DATE: January 10, 1962

FROM : *RLM*b6
b7CSUBJECT: TRACING TELEPHONE CALLS
STROMBERG-CARLSON DEVICE

Tolson	_____
Belmont	_____
Mohr	_____
Callahan	_____
Conrad	_____
DeLoach	_____
Evans	_____
Malone	_____
Rosen	_____
Sullivan	_____
Tavel	_____
Trotter	_____
Tele. Room	_____
Ingram	_____
Gandy	_____

In the 1/6/62 "New York Times" an article (under a 1/5/62 Washington date line) appeared concerning the invention by a telephone engineer of a device which "can trace nuisance calls such as anonymous bomb threats." The Director has asked "What do we know of this."

This device has been developed by the Stromberg-Carlson Company for primary use with its so-called "XY" switching system used in telephone exchanges. The "XY" system is restricted to use by independent telephone companies and is similar to the "step-by-step" system used by the Bell Telephone Companies. The "XY" system is installed mainly in relatively small exchanges in small towns and cities and lacks the flexibility and capacity required of systems used in larger exchanges.

This tracer requires additional wiring at the called party's telephone and in the exchange. This enables the called party to lock up the circuit equipment used by the call so that the origin may be traced even though the calling party hangs up. The same technique has come to the Bureau's attention previously. It has been used before by both Bell System and independent telephone companies in exchanges where the equipment has permitted such.

The Stromberg-Carlson Company, as is the case with Bell Laboratories, has not been successful in developing economically practical call-tracing equipment for the other types of switching systems used in large telephone exchanges.

RECOMMENDATION:

For information.

JMM:bwd (8)

1 - Mr. Belmont
1 - Mr. DeLoach

80-789

ENCLOSURE

EX 104

REC-33

80-789-97

FBI - NEW YORK

JAN 15 1962

NOTY ENV

1/15/7

Mr. Tolson	✓
Mr. Belmont	✓
Mr. Mohr	✓
Mr. Callahan	✓
Mr. Conrad	✓
Mr. DeLoach	✓
Mr. Evans	✓
Mr. Malone	✓
Mr. Rosen	✓
Mr. Sullivan	✓
Mr. Tavel	✓
Mr. Trotter	✓
Tele. Room	✓
Mr. Ingram	✓
Miss Gandy	✓

Nuisance Phone Tracer Patented

Recipient Presses a Button That Locks the Circuit

By STACY V. JONES
Special to The New York Times

WASHINGTON, Jan. 5 — A telephone engineer has invented a circuit that can trace "nuisance calls" such as anonymous bomb threats. The person called presses a button that alerts the telephone central office and keeps the switches from being released until the source of the call can be determined.

The Stromberg-Carlson division of the General Dynamics Corporation, which received a patent for the circuit this week, already is supplying independent telephone companies with the equipment. It is reported to have been used with success.

The "trapping circuit" was invented by Robert F. Pedrick, an advance development engineer in the company's plant at Rochester, N. Y.

In many modern systems, the inventor explains, in Patent No. 3,015,698, the switch train is released when the person calling hangs up. In others, it is disconnected only after both parties hang up. Mr. Pedrick's arrangement allows the recipient of a call to notify the telephone company without going to a different telephone. After he has pressed the button he can hang up and make another call to the police, for example, while the circuit remains locked.

A central office can keep one of the trapping circuit units on hand and install it on the telephone of a subscriber who is being subjected to nuisance

CLIPPING FROM THE

N. Y. Times
EDITION Late City
DATED 1-6-62
PAGE 23

FORWARDED BY NY DIVISION

Editor:
John B. Oakes

What do we know of this?

ENCLOSURE

REC-33 80-789-97

EX 104

JAN 15 1962

Conrad
JHM

b6
b7c



Robert F. Pedrick, telephone engineer, with his trapping circuit unit, which makes it possible to trace calls.

calls. When it is supplied with original equipment, a unit costs between \$100 and \$150, but is more expensive when existing equipment must be modified. The subscriber pays nothing. The division makes telephone and related communications equipment, principally for the independent telephone industry (outside the Bell System), and does some production for the

Signal Corps. Control was acquired by General Dynamics in 1955.

Stromberg-Carlson began manufacturing manual equipment in 1894 and moved from Chicago to Rochester in 1900. With the advent of dialing, the company turned to electro-mechanical switching, and is

now working on electronic switching. Its first electronic PBX (private branch exchange) was installed in Southern Pines, N. C., last year.

Mr. Tolson	_____
Mr. Belmont	_____
Mr. Mohr	_____
Mr. Callahan	_____
Mr. Conrad	_____
Mr. DeLoach	_____
Mr. Evans	_____
Mr. Malone	_____
Mr. Rosen	_____
Mr. Sullivan	_____
Mr. Tavel	_____
Mr. Trotter	_____
Tele. Room	_____
Mr. Ingram	_____
Miss Gandy	_____

Telephone Pests Mousetrapped By Protective Key

By JOHN TROAN

Script: Howard Newspapers

WASHINGTON, Jan. 6.—A pushbutton gadget to mousetrap "phone rats" has been devised by engineers.

The phone rats are nuisance callers who pester people on the phone while hiding their identities.

Some annoy women by insistent demands for dates. Others use vile language. Still others seek to elicit personal information by trying to pass themselves off as poll-takers, confidential interviewers, researchers or salesmen.

Attached to Phone

Up to now, it has been hard to trace such callers—especially when they use dial phones.

But engineers with the Telecommunication Division of the General Dynamics Corp., Rochester, N. Y., believe they've finally come up with an answer.

It's a button—or, if you prefer, a key—which can be attached to your home phone.

If you get a nuisance call, all you have to do is push the button or turn the key.

CLIPPING FROM THE

N. Y. World Telegram & Sun

EDITION FINAL

DATED 1-6-67

PAGE 1

FORWARDED BY DIVISION

Editor:

Lee B. Wood

ENCLOSURE

80-789-97

7PM 11 13 35 LM .25

That automatically signals the telephone office — which locks onto the number of the phone from which the call has been made. It also triggers an alarm at the telephone office so the call can be instantly traced.

Once you push the "trapping button" or key, you can hang up, pick up your phone again and immediately dial the police to alert them.

General Dynamics, which has just been issued a patent for the gadget, said it already was in use in several Midwest areas.

A Public Service.
It is, said the company, primarily a public service offered by a phone company to protect subscribers who have been subjected to abuse and who ask for such help.

The company said the device might be hooked to a subscriber's phone only after a certain number of nuisance calls indicate help is needed to correct a situation of deliberate annoyance.

The button can be hitched to any phone connected to a central telephone office. But it won't work on phones tied to an office switchboard.

✓ Tracing Telephone Calls

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b7C

New Instrument Enables Tracing Of Phone Calls

NEW YORK, Jan. 9 (AP).—
A new device is offered as a
weapon against the kidnaper,
the dangerous crackpot and the
mere nuisance when they
huddle behind the anonymity
of a telephone call.

General Dynamics Corp. has
patented and distributed on a
small scale an instrument
which the company asserts
makes it possible to lock in
an anonymous call even if the
caller stays on the line only
seconds.

With the instrument, the re-
ceiver of a call pushes a button
on his telephone that keeps
the calling telephone on the
line, even if the caller hangs
up. Then the receiver can dial
police or telephone headquarters
without breaking the original
connection, and the call can
be traced.

General Dynamics already
has made the device available
to some Mid-Western telephone
companies. The company said
the instrument would normally
be used on request from sub-
scribers bothered by nuisance
calls.

Washington Evening Star
1-9-62 - Excerpt
of Reprint from New York
Times 1-6-62 article
bearing a 1-5-62 Washing-
ton dateline.

ENCLOSURE

80-789-99

SAC, St. Louis (9-1520) (66-2198)

January 9, 1962

REC- 62

Director, FBI (80-789) 98

TRACING TELEPHONE CALLS

Reference is made to your letter dated 1/3/62 captioned "Confidential Investigative Telephone Technique - Telephone Trap" in which you advise that the Southwestern Bell Telephone Company employed a G-5 device for tracing a telephone call in the case of

[REDACTED] - Victim; Extortion;
JDA. It is desired that you ascertain from the Southwestern Bell Telephone Company whether or not this trap puts a ground on the tip or ring side of the line through a resistance and whether or not they depend on the trouble recorder in a central office to read out the calling number from the called terminal in the central office. You should also ascertain whether or not this device will report calls being made from a foreign exchange that is an exchange other than that used by the called party. Full technical details concerning this device should be ascertained through established confidential sources and a reply directed to the Bureau, attention FBI Laboratory at an early date.

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b7C

CKC:bwd

(7)

MAILED 27

JAN 9 - 1962

COMM-FBI

Tolson _____
Belmont _____
Mohr _____
Callahan _____
Conrad _____
DeLoach _____
Evans _____
Malone _____
Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Ingram _____
Gandy _____

MAIL ROOM ☒

TELETYPE UNIT ☐

JAN 24 1962

UNITED STATES GOVERNMENT

Memorandum

80-789

TO : DIRECTOR, FBI
ATTENTION: FBI LABORATORY
ELECTRONICS SECTION
FROM : SAC, ST. LOUIS (9-1520) (66-2198)

DATE: 1/3/62

b6
b7c

SUBJECT: CONFIDENTIAL INVESTIGATIVE
TELEPHONE TECHNIQUE -
TELEPHONE TRAP

Recently in an Extortion case in St. Louis
[REDACTED] VICTIM;
EXTORTION; JDA, St. Louis file 9-1520) the following
technique was employed which may be of benefit to other
offices in handling Extortion and other types of cases.

In the St. Louis Extortion case the victim's
car was vandalized, two threatening letters were sent
through the mail, and the victim's home was vandalized
on 12/24/61 when the victim was out of town. Previously
the victim's wife had received a mysterious phone call
in which the party calling did not reply to the wife's
salutation. The caller kept the line open for about 30
seconds and then hung up. On 12/24/61 while Special
Agent [REDACTED] was processing the home after the
damage three similar calls were received. Thereafter
SA [REDACTED] requested the assistance of a telephone company
informant as to the possibility of determining the
originator of the telephone calls to the victim's home.

The telephone company informant advised that
the Southwestern Bell Telephone Company had a device
referred to as a "telephone trap", known technically as
the G-5 device. This is a device which records the
telephone number of the incoming caller regardless of
whether or not the call is completed. Mechanically t

- 5 - Bureau (1 - Assistant Director
Domestic Intelligence Division
1 - Assistant Director
Division 6 - General Investigative Division
1 - Assistant Director
Division 9 - Special Investigative Division) -
(REGISTERED MAIL)

2 - St. Louis REC-62
VT:gmf
(7)

80-789-98

10 JAN 18 1962

EX 104

SEVEN

RECEIVED
COMM-FBI

SL 9-1520
66-2198

caller's number is punched into a tape.

In the St. Louis Extortion case several calls placed from the subject's home phone to the victim's house, and the subject's telephone number, as well as the time the call was made were recorded. This assisted in our solving the case.

The telephone company informant advised that the device is not infallible in that in certain instances depending upon the traffic on the pairs of wires the device will not make all the recordings. It is noted the device works by electrical impulse.

St. Louis wishes to point out that this device is not the same as the device used to record outgoing phone calls dialed from a particular number. Furthermore it is to be noted that this device does not record any conversation but merely records the number of the incoming caller.

To the knowledge of the St. Louis Division it is necessary to obtain the assistance of the telephone company in order to employ this device. However, the possibility exists that the Electronics Section of the Laboratory may already have such a device or may be able to perfect one which can be used by the Bureau as the needs arise without securing the cooperation of the telephone company.

The above is being furnished for the information of the Bureau in the event the Bureau may desire to apprise other divisions of this device which can be used as an investigative technique not only in Extortion and other criminal matters but in all types of intelligence investigations.

CAUTION: THIS IS A HIGHLY CONFIDENTIAL ITEM WITHIN THE TELEPHONE COMPANY AND SHOULD NOT BE DISSEMINATED OUTSIDE THE BUREAU.

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI

DATE: 1/10/62

FROM: *[Signature]* SAC, BUFFALO (66-781)

SUBJECT: TECHNICAL EQUIPMENT
BUFFALO DIVISION

Enclosed herewith is a newspaper clipping of an article appearing in the 1/6/62, edition of the "Buffalo Courier-Express," a local newspaper.

The device mentioned in this article appears to have some value in Bureau investigations.

If the Bureau does not have full information on this device from some other source, it is suggested that, inasmuch as the "General Dynamics Co." is located in Rochester, N.Y., this office could obtain full details as to its usefulness from the manufacturer. As the information may already be in the possession of the Bureau no contact will be made without Bureau authority.

80-789-

NOT RECORDED

25 JAN 26 1962

*at Buffalo
Chief Clerk
1/23/62
2/65*

*Patent 3015698
Long Co. not on P&H list*

ENCLOSURE

- 2 - Bureau (Enc. 1)
- 1 - Buffalo

JDK:RMM
(3)

SEVEN

New Device Able to Trap Phone Pests

NEW YORK, Jan. 5 (UPI)—The telephone rings at 3 a.m. The anonymous voice on the other end threatens violence or breaks into a torrent of profanity. Attempts to identify the caller are met with a click of the receiver.

Now it is possible to track down such "nuisance callers" even if they only remain on the line a few seconds.

A device developed by General Dynamics telecommunication engineers in Rochester allows the telephone owner to "lock in" his abusive caller with the push of a button. At the same time, the button signals an alarm in the telephone company office which permits quick identification of the line over which the nuisance call was placed.

The device even allows the recipient of a nuisance call to hang down his receiver and call police or the phone company without fear of losing the "trapped" circuit, the developer reports.

The "trapping" device already is in service in several exchanges in the Midwest. General Dynamics said it could be made readily available to phone owners after a certain number of nuisance calls indicate a situation of deliberate annoyance.

Buffalo Courier Express

Date 1-6-62

Edition FOUR STAR

Buffalo, N. Y.

Editor _____

Buffalo Office

PAGE 2

88-789

ENCLOSURE

UNITED STATES GOVERNMENT

Memorandum

TO : Director, FBI (80-789)
(Attn: FBI Laboratory)

DATE: 1/15/62

FROM : SAC, San Francisco (66-3752)

SUBJECT: ~~TOLL-FREE TELEPHONE DIRECT~~
~~DIALING DEVICE - CALIF.~~
~~RESEARCH MATTERS -~~
SAN FRANCISCO DIVISION

b6
b7C

Tracing Telephone Calls

Re Bulet 1/3/62.

pr
In accordance with the Laboratory's request, Chief Special Agent [redacted] Pacific Telephone and Telegraph Company, Sacramento, California, has made available the toll-free telephone direct dialing device instrument which is being forwarded under separate cover.

After examination and review, it would be appreciated that this item be returned to the San Francisco Office, Attention SA [redacted] at which time it will be returned to [redacted]

[redacted] was advised of the Bureau's appreciation in furnishing the information concerning captioned device and in addition, he has advised that at any time anything of a mutual interest comes to his attention we would be appropriately advised.

- ③ - Bureau (1 - Package)
- 1 - San Francisco

MMD/jr
(4)

No reply necessary. will be examined and returned. ex

10
EX-100

REC-3

80-789-99
4 JAN 19 1962

SEVEN

246
57 JAN 26 1962

SAC, Buffalo (66-731)

January 25, 1962

Director, FBI (80-739)

CALL TRACING EQUIPMENT

Reurlet 1/10/62 captioned "Technical Equipment, Buffalo Division," in which you enclosed a clipping from the "Buffalo Courier Express," a local newspaper reporting the development of a device to trace telephone calls.

It is desired that you ascertain from the General Dynamics Company, Rochester the types of switching systems in which the "Annoyance Call Trapping Circuit" will "lock up" the switching train back to the "calling" station. Also, whether or not it will function when calls are received from foreign exchanges as well as calls made through all relay, tandem and panel types of central office equipment. Any other available technical details should be furnished.

For your confidential information, it appears from inquiries made in the Washington area that this release was prematurely made and to date the only information that the company has been able to supply is information available through the U. S. Patent Office. A copy of the patent has been obtained for Bureau records.

Your reply should be forwarded to the Bureau, attention FBI Laboratory, at an early date.

CKC:bwd (6)

NOTE: The Laboratory has reviewed a copy of the patent covering above-discussed device and it appears that it has very limited application. From the available information, this device appears to be limited to use in step-by-step types of central offices and it does not appear that it can be used in tracing calls originating in a foreign exchange. The potential of this patented device will be explored further and the Laboratory will continue to follow.

Tolson _____
Belmont _____
Mohr _____
Callahan _____
Conrad _____
DeLoach _____
Evans _____
Malone _____
Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Ingram _____
Gandy _____

MAIL ROOM ☐ TELETYPE UNIT ☐

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI

DATE: 1/16/62

FROM : *WBS* SAC, LOS ANGELES (66-119) ATTN: ELECTRONICS SECTION
FBI LABORATORYSUBJECT: TELEPHONE CALL TRACER
INFORMATION CONCERNING*Tracing Telephone Calls*

The 1/6/62 issue of the "Pasadena Star News" carried a UPI Wire Service article entitled, "Crank Phone Calls May Be Traced". The article was as follows:

"A new device which permits authorities to track down harassing or crank phone calls even if the callers stay on the line for just a few seconds, has been developed.

"General Dynamics Telecommunication Engineers of Rochester, N.Y., announced the new device yesterday. It allows the telephone owner to "lock in" his caller with the push of a button. At the same time, an alarm is sounded in the telephone company headquarters which permits quick identification of the line over which the nuisance call was placed.

"Recipients of nuisance phone calls can even hang up and call police or the phone company without losing the trapped circuit.

"General Dynamics said the new equipment would be readily available to phone owners after a number of nuisance calls indicated a deliberate annoyance. The firm said the device is already in service in certain midwestern areas."

The above is for the information of the Laboratory and if it is being used by telephone companies on the West Coast, it is requested that information be furnished to the Los Angeles Office concerning its use.

③ - Bureau
1 - Los Angeles

flb/rhf
(4)

*let LA
circ/anal
1/25/62*

80-789
NOT RECORDED

25 JAN 26 1962

b6
b7c

Shuman
SEVEN

Legal Attache, Tokyo (80-1)

January 24, 1962

Director, FBI (80-789) - /00

REC-4

EX-107

RELATIONS WITH TOKYO
METROPOLITAN POLICE DEPARTMENT

b6
b7C

Reurlet 1/11/62 captioned as above. There is enclosed a Photostat of Patent Number 3,015,698 issued to [redacted] Assignor to General Dynamics Corporation, Rochester, New York, captioned Annoyance Call Trapping Circuit.

The device, according to the inventor, is designed to lock up the switch train from the connector back to the calling telephone instrument. It is unique in that it will release the called telephone line while the trace is being made visually so that the called station may be used for making outgoing calls. This called line release is a feature that other call tracing systems of the same type do not have.

The patent data is the only information the company has made available to date. It appears from a review of this patent that no provision has been made to trace a call originating in a foreign exchange, nor does it appear that the device will work on all relay types of switching systems.

This patent is being made available to you for transmittal to the Tokyo Metropolitan Police Department.

Enclosure

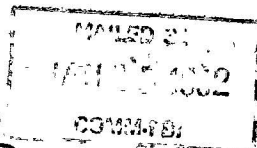
1 - Mr. Sullivan (Attention: Mr. Winter)

1 - Foreign Liaison Unit (route through for review)

CKC:bwd

FBI - 100-35
(9) REC'D - 100-35

Tolson _____
Belmont _____
Mohr _____
Callahan _____
Conrad _____
DeLoach _____
Evans _____
Malone _____
Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Ingram _____
Gandy _____



MAIL ROOM ☒

TELETYPE UNIT ☐

UNITED STATES GOVERNMENT

Memorandum

TO : Director, FBI

DATE: 1/11/62

FROM : Legat, Tokyo (80-1) (P) Attention: FBI Laboratory

SUBJECT: RELATIONS WITH TOKYO
METROPOLITAN POLICE DEPARTMENT

Tracing Telephone
1/11/62

On 1/10/62 [] Liaison Officer, Tokyo Metropolitan Police Department, called attention of Legat to an article in the 1/9/62 issue of the "Japan Times" newspaper, which is quoted:

b6
b7c

"Device Helps Trace Crank Phone Calls

"New York (UPI)--A new device which permits authorities to track down harassing or crank phone calls even if the callers stay on the line for just a few seconds, has been developed.

"General Dynamics telecommunication engineers of Rochester, N.Y., announced the new device Friday. It allows the telephone owner to 'lock in' his caller with the push of a button. At the same time, an alarm is sounded in the telephone company headquarters which permits quick identification of the line over which the nuisance call was placed."

TSUKADA stated the Tokyo Metropolitan Police Department (MPD) is very much interested in any information available on the device in question, in view of frequency of crimes in this city involving telephone calls.

Anything the Bureau can provide for transmittal to the Tokyo MPD will be appreciated.

3 - Bureau (1 - Foreign Liaison via R/S)
1 - Tokyo
HLC/mer
(4)

REC-4

80-787-12

Handwritten notes and signatures at bottom left.

Handwritten notes and signatures at bottom right.

SAC, Los Angeles (66-119)

1/25/62

Director, FBI (80-789)

**TELEPHONE CALL TRACER
INFORMATION CONCERNING**

Reference is made to your letter 1/16/62 in captioned matter, requesting that you be furnished information concerning the use of the call tracing device developed by General Dynamics Telecommunication engineers.

The Annoyance Call Trapping Circuit was granted a patent, Number 3,015,698, to permit locking up a switch train back to the calling number and still let the called subscriber use his telephone to make outgoing calls. This device performs a function similar to that of the Signal System developed by Tele-Signal, 11618 Exposition Boulevard, Los Angeles, a device that is known to sound-trained personnel in your office. The General Dynamics device has the same tracing limitations as the Tele-Signal unit and the use is confined to Step-by-Step and X-Y switching systems. It is felt that this device, in its present state of development, has limited application and therefore it will not be generally accepted by operating telephone companies.

CKC:bwd

(6)

NOTE: Bureau is aware of details of instant patent. Memo 1/10/62 to Mr. Conrad captioned "Telephone Call Tracer" sets forth details of the device.

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Tolson _____
Belmont _____
Mohr _____
Callahan _____
Conrad _____
DeLoach _____
Evans _____
Malone _____
Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Ingram _____
Gandy _____

JAN 25 1962

COMM-FBI

51 JAN 29 1962

MAIL ROOM ☒

TELETYPE UNIT ☐

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789)
ATTN: FBI LABORATORY

DATE: 1/26/62

FROM : SAC, ST. LOUIS (66-2198)

b6
b7C

SUBJECT: TRACING TELEPHONE CALLS

ReBulet to St. Louis 1/9/62.

On January 23, 1962, [redacted] Equipment Chief of the Southwestern Bell Telephone Company, was interviewed by SAs [redacted] and PATRICK W. BRADLEY with regard to the technical aspects of techniques employed by the telephone company in determining the identity of the telephone number of a calling party. [redacted] explained that the ability of the telephone company to identify a calling party is limited to those central offices employing new switching equipment known as five crossbar equipment. It is possible to identify the calling party in a five crossbar station only provided the telephone call originates and terminates within the same central office district.

Some central offices are equipped with crossbar one equipment and in these offices it is possible to determine the identity of the exchange of a calling party, but not the complete telephone number. If a telephone call is received by a five crossbar central office from an outside central office, it is still possible for the five crossbar office to determine the exchange from which the call is being made, but not the number. The same is true with regard to a crossbar one central office. In central offices employing the step by step switching system and the panel systems, it is impossible to obtain any information regarding a calling party unless the calling party can be held on an open line for approximately ten minutes or more. In such a case to trace a call it is necessary to physically check back through the various banks of switching equipment.

According to [redacted] there are no five crossbar central offices in the City of St. Louis, however, there are some offices employing crossbar one equipment and some

- 2 - Bureau (certificates in Electronic Section)
- 3 - St. Louis
 - (1 - 66-2198)
 - (1 - 9-1520)
 - (1 - [redacted])

b7D

SJR:ra

650 FEB 14 1962

Nothing new
No reply necessary

801-108

SEVEN

SL 66-2198

offices have a combination of crossbar one, panel and step by step equipment. In St. Louis County, all offices are five crossbar offices with the exception of the office in Webster Groves and the UNDERhill exchange in north St. Louis County, which two offices employ crossbar one equipment.

** Higher than in other areas*

The term "telephone trap" is a terminology used by the telephone company to describe the process of trapping a particular telephone call. This technique is accomplished by placing a 20,000 ohm resistance to ground on either the tip or ring side of the line. It is preferable to place the resistance on the ring side of the line in order to create an unbalanced line condition. This unbalanced line condition or trap is placed on the telephone line of the party expected to be called. The unbalanced line condition will, when this party is called, immediately place into the circuit elaborate test equipment maintained at the crossbar five central office. This test equipment by means of a punch card system will punch out the line called, the time of the call and the origin of the call. If the call originated within the same central office as the party being called, this punch card will show the exchange and the complete *CALLING* telephone number. Crossbar five switching equipment carries what is known as a tracer signal which proceeds the ringing current for the purpose of checking the circuit to determine if it is clear and free of trouble. It is this tracer signal that brings into play the test equipment when a line is unbalanced. The reason a 20,000 ohm resistance to ground is used is because this amount of resistance although it will unbalance the line it will not create a condition that is noticeable by the called or calling parties.

pointed out that in connection with a recent newspaper article concerning the ability of telephone subscribers to purchase an attachment for their telephones that would enable them to ascertain the identity of the calling party's number, that this type of equipment is not possible to be attached by a subscriber in view of the fact that (1) the cost would be prohibitive, and (2) that until the ringing telephone is answered it would not be possible for the tracer signal to operate equipment installed by a subscriber.

b6
b7c

UNITED STATES GOVERNMENT

Memorandum

TO : Director, FBI (80-789)
(Attn: FBI Laboratory)

DATE: 2/12/62

FROM : SAC, Buffalo (66-781)

SUBJECT: CALL TRACING EQUIPMENT

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b7C

ReBulet to Buffalo, 1/25/62.

On 1/31/62, SA [redacted] contacted Mr. [redacted] General Dynamics/Telecommunication, 100 Carlson Road, Rochester, N.Y., and [redacted] for the same company.

[redacted] advised that the "Call Tracing Device" in question was developed by him about five years ago and was designed for use with Stromberg-Carlson dial-switching equipment. The device is limited to telephone circuits operating on the "last party release" principle.

[redacted] explained that the "last party release" principle was not used to any great extent and worked on the principle that the party that received a call took over control of the line by picking up the hand piece of the telephone and could hold the calling party's line relays closed until the called party hung up regardless of what the calling party did. The call tracing device added to this feature in the following way. A switch on the phone connected to the call tracing device could be operated while the phone was off the hook and put an unbalance on the telephone line that operated a relay at the central office. This relay locked up and placed a short on the line which took the place of the called party's short at the phone instrument and held up the calling party's line until it was released manually. The operation of this shorting relay also placed the original called party's phone in operation so it could be used to call the police or the telephone company and have the call traced.

[redacted] also stated that the device, as presently designed, could not be used in large metropolitan areas using multi-office dial switching. He said, however, that it could be adapted to other types of switching equipment at considerable

2 - Bureau (Enc. 1)
1 - Buffalo

JDK:afe

(3)

50 FEB 16 1962
ENCLOSURE

REC- 50 16 FEB 18 1962

BU 66-781

expense if the system was changed to "last party release" which would be extremely difficult if not impossible.

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b7c

[] advised that his company had received hundreds of inquiries regarding this device both by mail and telephone.

A copy of the printed reply sent to all those who made inquiry is enclosed.

GIHIIID

GENERAL DYNAMICS | TELECOMMUNICATION

The deluge of phone calls, telegrams and letters asking for more information on the General Dynamics/Telecommunication "Nuisance Phone Call Trapper" proves the widespread interest in the type of protection this device can offer. To answer all these requests individually would deny the prompt reply which your query deserves.

The device was designed for use in certain Independent telephone company exchanges, particularly those using Stromberg-Carlson® dial equipment. In large metropolitan areas using multi-office system of dial switching, the device as presently designed could not be feasibly employed. The existing apparatus is also limited to use on circuits operating on the "last party release" principle. Your telephone company can tell you whether either of these limitations apply in your city.

General Dynamics/Telecommunication is a supplier of equipment to the Independent telephone companies. It is in a position to furnish the "Nuisance Phone Call Trapper" to those operating companies who can use it in their system, and who request it. General Dynamics/Telecommunication cannot sell telephone equipment requiring central office connection directly to any subscriber to telephone service, and in no way seeks to encourage requests for service that cannot be accommodated by the telephone company serving you.

We appreciate the interest you have shown in contacting us, and hope that this reply has been helpful.

General Dynamics/Telecommunication
News Information Department



STROMBERG-CARLSON® PRODUCTS | 100 Carlson Road, P.O. Box 788, Rochester 3, New York HU 2-2200

80-789-102 ENCLOSURE

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI
Attention: FBI Laboratory

DATE: 2-9-62

FROM : SAC, OKLA. CITY

SUBJECT: TRACING Telephone CALLS
TELEPHONE TRAPPING CIRCUIT
RESEARCH MATTER W. 1/1

pc
An article appeared in "The Enid Daily Eagle," Enid, Okla., 1-25-62, which is quoted as follows:

"The invention and successful use of a trapping circuit which can trace nuisance telephone calls is most welcome news. The recipient of a harassing call simply pushes a button which locks the circuits in the central office and enables the company speedily to determine the number of the caller. The device, which costs about \$150, already is being used by several independent companies. The news that such a device exists should do much to reduce the built-in nuisance factor that goes with all telephones and particularly to discourage the type of person who perpetrates bomb hoaxes."

It is my understanding that the General Dynamics Corporation of Syracuse, N. Y., makes this article. Cs

LOT/ms

(3)

2 - Bureau

1 - Okla. City

801-X3

REC-33

46-787-103

25 FEB 14 1962

62 FEB 19 1962

SEVEN-1000

SAC, Los Angeles (7-0)

February 21, 1962

REC-15
Director, FBI

80-789-104

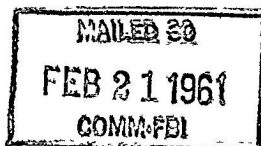
**TELEPHONE EQUIPMENT
IN KIDNAPING CASES**

ReLAlet 2/9/62.

Your attention is directed to Bulet to Los Angeles 1/25/62 captioned "Telephone Call Tracer, Information Concerning." (Your file 66-119)

The device you describe in referenced letter would appear to be the same one of two devices mentioned in Bulet 1/25/62. It is to be noted that the General Dynamics device has received nationwide publicity recently. Because of limited application and a general nonacceptance of this device, in its present state of development, by operating telephone companies, it is not being suggested as an investigative aid at this time. It is suggested that you discuss this matter with sound-trained personnel in your office.

WEH:bwd (6)



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Tele. Room _____
Ingram _____
Gandy _____

MAIL ROOM ☒ TELETYPE UNIT ☐

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI

DATE: 2/9/62

FROM : SAC, LOS ANGELES (7-0) ATTENTION: FBI LABORATORY

SUBJECT: TRACING TELEPHONE CALLS
TELEPHONE EQUIPMENT IN
KIDNAPING CASES

Several Los Angeles area newspaper have recently carried stories concerning an electronics device which can be attached to any telephone, except a private board exchange, which device will trap or automatically "lock in" the calling station, and which also signals an alarm..

The articles point out that future fake-bomb scares can be eliminated through the use of this device. An annoyed telephone subscriber who wants quick action after receiving a call will be able to hang up his telephone, after pushing the trap button, and immediately call either the telephone company or the police, according to instructions that come with the device. Within seconds the source of the call can be pinpointed.

The article also indicated this device is already in use in certain areas of the nation.

It would appear that the above device, which reportedly has been developed by an unknown Southern California firm, would appear to have very practical applications in kidnaping, extortion, bomb threat cases, and other investigative matters where it is imperative the identity of a telephone caller be determined immediately after the call is made.

The Los Angeles Office would appreciate any information which the Laboratory might have concerning the development and use of such a device, and if one is available at the Bureau; and if so, what plans are being made for making these devices available to the field.

3 - Bureau
1 - Los Angeles
KAL:srb
(4)

REC-15

EX-113

80-789-104
27
FEB 14 1962

let LA
2/21/62
WEH/land

SECTION
WHL

EXP. PROC.

1 Detached Laboratory, WSA 2/15/62

SAC, San Francisco (66-3752)

April 12, 1962

Director, FBI (80-789)

TRACING

calls

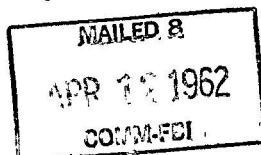
**TOLL-FREE TELEPHONE/DIRECT DIALING DEVICE
RESEARCH MATTERS
SAN FRANCISCO DIVISION**

There is being forwarded to your division under separate cover via registered mail captioned device for return to Special Agent Pacific Telephone and Telegraph Company, Sacramento, California, by an Agent of your office. The unit was operative when received in the Laboratory; however, there were no lines on which its function could be tested.

Your interest in bringing this to the Bureau's attention is appreciated and you should express the Bureau's appreciation to for allowing the Laboratory to examine the device.

NOTE: Instant device designed by electronic engineering students who work for the Bell System in the summer vacation periods. Students not prosecuted. Equipment puts 1000 cycle bursts on the line during dialing sequence with one burst of tone for each digit dialed. Unit provides for continuous tone to seize and hold trunk line when necessary. Oscillator is transistorized using a 22.5 volt battery for power.

OK
CKC:cf (7)
y



REC- 56

80-789-105

APR 13 1962

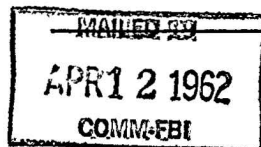
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Invoice of Contents from
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D. C.

Date 4/12/62 Case References 80-789

Consigned to: SAC, San Francisco ReBulet 4/12/62



ATTN: M. M. DeJEAN

List of Contents

Return to Room 762

718073 *1* Ea. Toll-Free Telephone 1
Crypt.-Trans. _____
Document Dialing Device. _____
Electronics _____
Physics-Chemistry _____
LFPS _____

SPECIAL INSTRUCTIONS: Mail Room, place date of shipment and registry number; Shipping Room, show date of shipment, bill of lading number and initial this invoice; then Via Registered Mail checked in column at right. After this checked section has been initialed, invoice should be placed in administrative file.

2 APR 16 1962 762

May 18, 1962

REC-9

80-729-106

EX-114

Mr. Robert V. Morse
521 Wyckoff Road
Ithaca, New York

Dear Mr. Morse:

Your letter of May 11, 1962, has been received.

Your prior discussion was with members of the FBI Laboratory staff and, should you desire to communicate further regarding this matter, it will be appreciated if you will direct your communication to me, attention FBI Laboratory. I assure you that it will be promptly directed to the appropriate members of my staff.

Sincerely yours,

John Edgar Hoover
Director

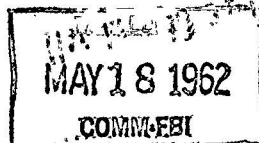
- 1 - Mr. Belmont
- 1 - Bufile 100-421410

CKC:bwd/cf (8)

SEE NOTE PAGE TWO.

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MAY 25 1962

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RECORDED COPY FILED IN 100-421410-1

Mr. Robert V. Morse

NOTE:

Morse was interviewed in the Laboratory by SAs

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[redacted] He stated that his interest in Call Tracing Equipment is merely from the standpoint of challenge to his inventive ingenuity, but did not want to devote time to such a development if a satisfactory call tracing method is already available. He was informed that the FBI Laboratory would be interested in any such equipment he might develop but that this Bureau could not underwrite research or development.

Morse, who is 73 years old, appears to be an authority on patent matters. He is an inventor, engineer and patent attorney. The 1948 edition of "Who's Who in Engineering" indicates that Morse holds ME and LLB degrees from Cornell and LLB degree from George Washington. He is a member of the bar of the Supreme Court and Court of Appeals and in New York State. He has been granted over 50 patents. (Bufile 100-421410-3) Bufile 100-421410 reflects that Morse has previously come to the Bureau's attention because of his anti-communist and pro-Egyptian activities.

LAW OFFICES OF
ROBERT V. MORSE
521 WYCKOFF ROAD
ITHACA, N. Y.

May 11, 1962

Federal Bureau of Investigation
F. B. I. Bldg.,
Washington D.C.

re: Means for tracing phone calls.

Dear Sirs:

Telephone

In the third week of April,- I think it was Thursday April 19, 1962,- I had a long talk with a gentleman in your building regarding the problem of tracing anonymous calls since automatic dialing has come in. He had had some personal experience in the problem, and I had some ideas on the technical side. He also introduced me to two other gentlemen who took me to their office for further discussion. They all carefully wrote out their names so that I could keep in touch with them.

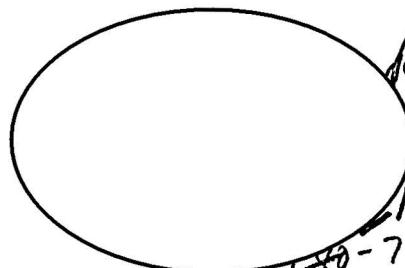
My present problem is that I have lost the memos and do not recall their names. Will you please trace this down so that I can keep in touch with them. Thanking you I remain

Very truly yours,

Robert V. Morse
Robert V. Morse

*Let Jack.
5/16/62
CRC/bud*
RVM:h

*Letter ack.
5/14/62
CRC/bud/cf*



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EX-114

REC-9 80-101-80-789

10 MAY 14 1962

EXP. PROC.
MAY 10 1962

SEVEN

SAC, Albany

May 31, 1962

Director, FBI (100-789) - 107
REC-53

TRACING TELEPHONE CALLS

Robert Virgil Morse, 521 Wyckoff Road, Ithaca, New York, appeared at the FBI Laboratory to discuss tracing anonymous telephone calls through automatic dial systems. He stated that his interest in call tracing is merely from the standpoint of challenge to his inventive ingenuity. He did not want to devote much time to the development of this device if a satisfactory call tracing method had been previously developed. He was informed that the FBI Laboratory would be interested in any such equipment but that this Bureau could not underwrite research or development.

By letter dated 5/11/62, Mr. Morse requested the names of the individuals with whom he had talked while at the Bureau. He was advised that he talked with members of the FBI Laboratory staff.

By letter dated 5/25/62, a copy of which is attached, Morse has advised that he had a "breakthru" in the tracing of telephone calls which operates independently of the circuitry in the talking line. It is desired that you have SA's [redacted] interview Morse to receive any information concerning his "breakthru" in this area that he desires to pass on to this Bureau. In the discussions with Morse you should advise him that this Bureau is interested in any equipment that he might develop in this field but that this Bureau cannot sponsor or underwrite any research in this matter. He should not discuss the Bureau's interest in this development with anyone to whom he may demonstrate the device or with whom he may discuss the unit.

Your reply should be directed to the Bureau, attention Electronics Section FBI Laboratory at an early date.

Robert Virgil Morse is subject your file 100-1520. Morse should be advised that this visit is in acknowledgment of his letter of 5/25/62.

Enclosure

- 1 - Mr. Belmont
- 1 - 100-421410

CKC:sfs (9)

MAIL ROOM ☐ TELETYPE UNIT ☐

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Holmes _____
Gandy _____

MAY 31 1962

RLM

AS



Letter to SAC, Albany
Re: TRACING TELEPHONE CALLS
80-789

NOTE ON YELLOW:

Morse has previously talked with Laboratory personnel concerning the tracing of telephone calls. At the time of the interview he had nothing new in the call tracing field. In view of his previous patent experience (he has been granted more than 50 patents) and his educational background (ME and LLB Degrees from Cornell; LLB Degree from George Washington), It is believed desirable to have him interviewed by sound-trained personnel in the field to determine the nature and the present status of his development. [] is an experienced sound-trained agent who has a good technical background. [] is the ASRA at Ithaca. [] is also a sound-trained agent but has had limited technical experience. If it appears that Morse has developed his call tracing technique to a point where it may have universal application in the telephone industry, A Laboratory supervisor familiar with the over-all call tracing problems will then contact him to fully explore the application of the technique to field wide investigative operations.

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RESEARCH LABORATORY OF
ROBERT V. MORSE
521 WYCKOFF ROAD
ITHACA, N.Y.

May 25, 1962

John Edgar Hoover
Director F.B.I.
Washington 25, D.C.

Attention F. B. I. Laboratory

re: Tracing anonymous telephone calls
thru automatic dial systems.

Dear Sir:

In response to your letter of May 18, 1962, - which was in reply to my letter of May 11, 1962, - the encouraging information I wished to transmit to the gentlemen I met April 19, 1962 is as follows:

The main obstacle to tracing anonymous calls was that when the caller hung up the line no longer existed, reverted immediately to its normal inactive state, ready to receive other calls. In my visit April 19th I remarked that the difficulty was not insurmountable, but could be solved by using the same line for a simultaneous inaudible circuit that could continue to remain live and traceable so long as a switch at the receiving end was closed. When the caller hung up and broke the talking circuit, the tracing circuit would by-pass each open switch, passing thru a signal light that would assist in tracing and would maintain the line from the anonymous call as long as desired.... That was my first breakthrough, and made me confident that the problem could be solved with very little expense for additional equipment. That was that, and as of April 19th I expected nothing further.

The occasion of my May 11th letter was that a week or two later, quite unexpectedly, I had another break thru along entirely different lines, quite independent of the circuitry of the talking line. It is a beautiful answer to the problem and can take the place of the other solution above mentioned, or both solutions can be used simultaneously, - as they in no way interfere with each other. So this anonymous call tracing problem is now well on its way to a practical solution.

Please transmit this information to the gentlemen with whom I talked April 19th. Like them I am conscious of the seriousness of the problem. Years ago I a Reading Room Against Communism in this college town. Human Events ran an item about it, saying it was the first in this country. The publicity brought me a lot of commie threats over the phone.

Yours truly,

12 MAY 28 1962

RVM:h

* founder

Robert V. Morse

b6
b7C

RA EX 100

REC-38

70-781-108

June 6, 1962

Mr. Robert V. ~~Morse~~
521 Wyckoff Road
Ithaca, New York

Dear Mr. Morse:

Your letter of June 2, 1962, has been received
and referred to members of the FBI Laboratory staff.

I appreciate your interest in this matter and
your forwarding the information to this Bureau.

Sincerely yours,

John Edgar Hoover
Director

over
CKC:bwd

(8)

NOTE: By letter dated 5/31/62 Albany was instructed to interview
Mr. Morse concerning his circuits for tracing anonymous telephone calls
through automatic dial systems. No further action is recommended in
this matter at this time.

MAILED 19
JUN - 6 1962
COMM-FBI

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1 - Mr. Belmont

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MAIL ROOM ☐

TELETYPE UNIT ☐

LAW OFFICES OF
ROBERT V. MORSE
521 WYCKOFF ROAD
ITHACA, N. Y.

June 2, 1962

John Edgar Hoover
Director F.B.I.
Washington 25, D.C.

0 Attention F. B. I. Laboratory
re: Tracing anonymous telephone calls
thru automatic dial systems.

Dear Sir:

In further response to your letter of May 18, 1962, I have finished my study of the problem of quickly determining the location of a coin box station from which anonymous threatening calls are coming. The determination is practically instantaneous, automatic, and leaves a printed record showing the phone numbers of both the sender and the receiver, the exact time of day, and the duration of the call. This information goes immediately to the called phone and also to any branch lines desired, (such as an FBI office).

The cost of installing such a detector is trivial, since the component units are already in stock at the exchanges, and it is merely a matter of connecting them up in a somewhat different way, which the regular employees at the exchange can easily do. I have gone thru the modern automatic central exchange here, inspected all of its equipment, and talked to the man in charge who confirmed the feasibility of the plan. Once it is installed, the detector apparatus continues to work automatically to record all future calls.

Somewhat similar apparatus is now in use on all telephones that have long distance dialing. Their only difference is that it is at the callers end of the line. However, it is perfectly feasible to duplicate the printing apparatus at other points in the circuit, such as the receiving end or other locations or extensions. In a few years it will be the same for toll stations as for private phones. When it becomes known that a call from a pay station can be traced as quickly as one from a subscriber's phone, anonymous calls from pay stations will cease to attract the criminal type.

I doubt if you will need any further correspondence from me on this matter, if you proceed along the lines indicated. But if you have any trouble you can let me know.

Yours truly,

EX 100

Robert V. Morse

P.S:- My phone book listing here is as a lawyer, but I am also a registered professional engineer and have been handling such problems for forty years. This receiver has not been one of business but merely to help a worthy cause. I consider your office one of the principal bulwarks of the nation.

RVM:h

8 JUN 5 1962

SEVEN

EXP. PROC.
32 JUN 5 1962

Det. sub.
Circ. 6/1/62

SAC, Pittsburgh
EX 100 REC-21
Director, FBI (80-789) -109

June 27, 1962

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b7C

TRACING TELEPHONE CALLS

It is desired that an experienced Sound-trained Agent determine the type of telephone switching equipment used in the telephone exchange serving the residence of SA [] and in addition, ascertain what special circuit, circuits or conditions will cause his telephone to remain inoperative until the called party properly hangs up his receiver. Inquiry should also be made to learn what the company does to induce the holding of calls by the called party as set out by SA [] in his suggestion on June 8, 1962.

Your reply should be directed to the Bureau, attention Electronics Section, FBI Laboratory, at an early date.

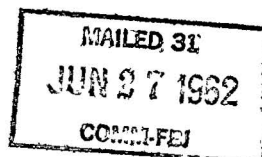
NOTE ON YELLOW:

SA [] is assigned to Pittsburgh (headquarters city). He pointed out in his suggestion that he had observed his telephone being inoperative when the called party, within the same exchange, failed to properly hang up his receiver. His inquiry at the telephone company indicated that the company can induce this condition in some instances. [] feels that this technique can be used as an investigative technique in anonymous types of telephone calls. [] did not indicate how the conversation path was held up nor the type of switching system used in his local exchange. The Laboratory makes a practice of closely following call tracing techniques. Pittsburgh has been successful in tracing calls through electro-mechanical aids (Bufile 9-38276; PG file 9-1548) however as in all cases of this type advance preparation must be completed before the technique can be applied. The Laboratory will ascertain the details of the particular telephone system referred to by [] to determine which of the call tracing techniques already known to the Bureau is being used in [] area. SA [] has been thanked for his interest in this matter 66-16339-325.

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1 - Mr. Belmont

CKC:sfs (9)



MAIL ROOM ☐ TELETYPE UNIT ☐

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Conrad

DATE: June 15, 1962

FROM : [redacted] *DEM*SUBJECT: SUGGESTION OF SA [redacted]
#989-62b6
b7C

Tolson	_____
Belmont	_____
Mohr	_____
Callahan	_____
Conrad	_____
DeLoach	_____
Evans	_____
Malone	_____
Rosen	_____
Sullivan	_____
Tavel	_____
Trotter	_____
Tele. Room	_____
Holmes	_____

Captioned agent suggests that the Bureau explore the possibility of a device to trace anonymous telephone calls in kidnaping, extortion, etc., types of cases. He points out in his suggestion that on occasions where he has placed a local telephone call, within the same exchange, that if the person to whom the call was placed failed to properly hang up his receiver after the call was completed, [redacted] phone was made inoperative since his circuit was intact with the person [redacted] called. [redacted] points out that he inquired at the telephone company concerning this condition and was told that it is a frequent occurrence in some exchanges and in some instances the telephone company can induce this to happen with proper preparations even when the telephone calls go through a switchboard.

SA [redacted] does not indicate how the conversation path is maintained, nor the type of switching system used by the telephone company operating in his area.

The Bureau has been following the telephone industry in connection with this matter, and will continue to maintain close liaison with companies concerning call tracing techniques. We are aware of certain aids for the tracing of telephone calls. However, the application of the techniques have rather limited use as far as the Bureau's investigative operations are concerned, and have not in the past been considered as investigative aids except in the most important cases. General or wide spread requests for the type of service requiring the tracing of telephone calls would not be well received by the telephone companies operating throughout the United States. It should be pointed out that Pittsburgh has been successful in tracing telephone calls through the use of electro-mechanical aids. (Bufile 9-38276 PG file 9-1548.)

80-789

EX 100

- 1 - Mr. Belmont
- 1 - Mr. Mohr
- 1 - Mr. Malone

CKC:sfs (10)

REC-21

JUN 20 1962

Memorandum to Mr. Conrad

Re: SUGGESTION OF SA [REDACTED]

80-789

The Bureau is familiar with a great many call tracing techniques used by operating telephone companies. Separately, through the Pittsburgh Office, the Bureau will ascertain the technical details of this particular telephone system involved to determine which of the call tracing techniques, already known to the Bureau, is being used in the telephone system mentioned by SA [REDACTED]

RECOMMENDATION:

It is recommended that SA [REDACTED] be thanked for his interest and alertness in this matter.

[Handwritten signature]

[Large handwritten arrow pointing downwards]

ADDENDUM OF TRAINING AND INSPECTION DIVISION, ^{ml}ML:jmh, ^{ml}6/20/62.

Since the Laboratory Division is well aware of the presence of certain call-tracing techniques and is following this subject on a continuing basis, the Training and Inspection Division agrees that no further action is necessary at this time regarding the suggestion. If after further study, the Laboratory Division decides in the future that the technique described by the suggester is applicable to our operations, they should submit recommendations for any additional recognition for the suggester.

RECOMMENDATIONS:

1. That the suggestion not be adopted. On approval, no further action is necessary with regard to the suggester as he was thanked by prior letter.

HHe

gr

2. If the Laboratory Division determines through further study that additional action is necessary regarding this idea, that they take appropriate action.

T set up in room

HHe

*Letter to Pittsburgh 6/27
CKC/*

JP M. [unclear]

gr
gTm

71 6 S 54.53

REC-10

June 13, 1962

PERSONAL

[Redacted]
Federal Bureau of Investigation
Pittsburgh, Pennsylvania

Dear [Redacted]

I have received your suggestion regarding an investigative technique for use in connection with certain Bureau cases. Your proposal is being considered and I will let you know if it is adopted.

The interest and alertness which prompted you to submit your idea are indeed appreciated.

Sincerely yours,

J. Edgar Hoover

2 - SAC, Pittsburgh - 1 - Suggestion File
1 - Field Personnel File

1 - Personnel file of SA [Redacted]

ML:jmh (Suggestion #989-62 dated 6/8/62)
(6)

NOTE:

Referred to the Laboratory Division for views and recommendations.

Tolson _____
Belmont _____
Mohr _____
Callahan _____
Conrad _____
DeLoach _____
Evans _____
Malone _____
Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Holmes _____
Gandy _____

MAIL ROOM ☐ TELETYPE UNIT ☐

JUL 12 1962

58 JUN 13 2 19 PM '62
REC'D-READING ROOM
FBI

JUN 12 15 10 PM '62
6-1 RT
[Signature]

#989-62

To: Director, FBI		From: (Suggester's name) SA [redacted]	Date 6/8/62 Division of Assignment Pittsburgh
SUGGESTION In connection with anonymous and nuisance telephone calls, I have observed that on occasions where I have placed a local telephone call, within the same exchange, that if the person to whom the call was placed failed to properly hang up his receiver after the call was completed, my phone was made inoperative since the circuit was still intact with the person I called. I have inquired of a telephone employee and he tells me that this is a frequent occurrence in some exchanges and in some instances the telephone company can induce this to happen with proper preparations even when the telephone calls go through a switchboard.			
Current practice or rule (Include manual citation as well as facts)			
Advantages of suggestion and annual savings (include basis for estimate) I feel that this would result in considerable savings of investigative time and also in the successful identification of unknown subject cases.			
Disadvantages of suggestion			
(The use by the United States of my suggestion shall not form the basis of a further claim of any nature by me, my heirs or assigns upon the United States. I understand that I will be considered for any justified award only if my suggestion is adopted within two years after submission.) <input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Mrs. <input type="checkbox"/> Miss [redacted]			
Recommendations and comments of Division Head Any device to help our investigative efforts is worth exploring. <i>Letter 6-27-62 JLF:niv</i> REC-10 JUN 12 1962 EX - 102 66-163-325 Signature and Title [redacted]			
(Do not write in this space - for Bureau use only) EX - 102 REC-10 JUN 11 1962 Bureau Pittsburgh LJF:niv (5)			

SUGGESTION (Cont'd)

I have in mind that this might be a very useful investigative aid in cases involving frequent anonymous telephone calls, if the party being called has been alerted not to hang up the receiver, and it might result in the disabling of the phone of the caller, which could be identified through telephone service and repair calls. I understand that in some instances this works on public as well as private phones and in the former, it would be possible to identify the area from which the call was made and in the latter, the address of the caller.

I feel that if this proves to be practical, it would certainly facilitate investigations in the kidnapping, extortion, threats to damage aircrafts, etc., categories.

The above is being suggested so that the technical personnel of the Bureau might explore its applicability to Bureau investigative techniques.

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789) DATE: 7/3/62
Attention: FBI Laboratory, Electronics Section

FROM : SAC, ALBANY (80-828)

SUBJECT: TRACING TELEPHONE CALLS

b6
b7C

Re Bureau letter to Albany 5/31/62.

On June 7, 1962, SA's [redacted] interviewed ROBERT VIRGIL MORSE at his home, 521 Wyckoff Road, Ithaca, N.Y. At that time Mr. MORSE was advised that the visit was an acknowledgement of his letter of 5/25/62. At the outset of the contact Mr. MORSE stated that he had done no work on the tracing of telephone calls, had made no plans to do so, and has no model to exhibit. He stated he has a theory that came to him when he heard about the automatic device for long distance dialing and automatic charge cards and equipment used by the telephone company. He stated he was of the opinion that with some research in all probability the mechanism used by the telephone companies to record the toll charges could in some way be adapted to tracing telephone calls.

MORSE stated that he would have no time to devote to the development of his idea unless someone would underwrite the research.

Mr. MORSE was advised that the FBI is interested in equipment that might be developed in this field, but that the Bureau could not sponsor or underwrite any research in the matter.

1 cc detached Communications Section
CC: 3-Bureau
1-Albany
VMS:PAC
(4)

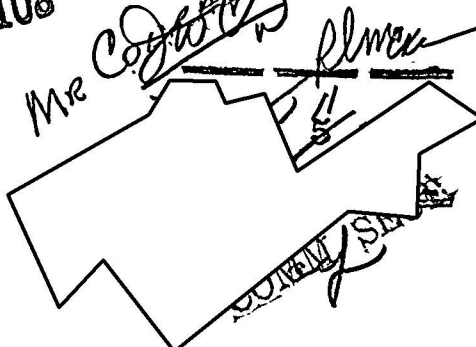
FBI
ELECTRONICS

EX-108

JUL 2 3 30 PM '62

RECEIVED

REC- 3670-789-111



1 cc Retained in Electronics Section

No reply necessary

58 JUL 17 1962

AL 80-828

Mr. MORSE was informed that he should maintain in confidence the Bureau's interest in any development along these lines.

For the information of the Bureau Mr. MORSE apparently holds the Bureau in high regard and thinks well of the Bureau personnel he has met in the past.

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789)
ATTEN: ELECTRONICS SECTION,
FBI LABORATORY

FROM : SAC, PITTSBURGH (66-257)

DATE: 7/12/62

SUBJECT: TRACING TELEPHONE CALLS

b6
b7c

ReBulet to Pittsburgh, 6/27/62.

SA [redacted] resides at Mt. Lebanon, Pa., which is telephonically serviced by the Locust Office of the Bell Telephone Company of Pennsylvania, Pittsburgh, Pa.

On 6/29/62 [redacted] Special Agent, Bell Telephone Company of Pennsylvania, Pittsburgh, advised SA [redacted] as follows:

The Locust Office employs #1 Crossbar switching equipment and all circuits within that exchange utilize a District Juncture Time-out device, otherwise known as a "time-out feature." This equipment and device make it possible for the calling party to have sole and complete control of the circuit. When both the calling and called parties hang up simultaneously, the circuit immediately becomes operative. When the calling party hangs up and the called party does not hang up, the circuit will be inoperative from 30-60 seconds at which time the time-out feature will cut in and will reactivate the calling party's circuit. When the calling party does not hang up and the called party hangs up, the circuit will be inoperative from 2-4 minutes, at which time the time-out feature will cut in and will reactivate the calling party's circuit. In either case if the circuit is not activated after 4 minutes, the inoperative condition is caused by malfunctioning equipment or a grounded drop.

This company has no means for the holding of calls by the called party. Although some central offices of this company utilize #5 Crossbar switching equipment, the Locust Office is not so equipped.

In connection with #5 Crossbar switching equipment, SA [redacted] previously brought to the attention of the Bureau the means by which the #5 Crossbar Trouble Recorder (also known as a Trouble

3- Bureau- (cc dgt)
1- Pittsburgh
HLW/JW
(4)

77 13 2 07 11 05

RECEIVED

25 JUL 17 1962

77 10 1 53 54 05

FBI

Card Decoding Machine) can be used in conjunction with #5 Crossbar switching equipment within an office employing #5 Crossbar switching equipment to identify a calling party. This company also uses this means in those offices having this #5 Crossbar switching equipment to identify nuisance callers.

This Recorder functions as follows:

The Recorder is placed in the called party's circuit and, in effect, trouble is placed in the circuit. All calls emanating within the office employing #5 Crossbar switching equipment and directed to the called party of this same office are identified by circuit connections on the basis of possible sources of the circuit trouble and the time of the call as well as the identity of the calling party is recorded on an IBM punch card. The called party notes the time of the nuisance call, the company matches the trouble card showing the identity of the calling circuit on the basis of the time element, and therefore the calling party can be readily identified. Essentially this Recorder is a trouble-shooting device but it can be readily used in tracing nuisance calls. In regards to this Recorder, it is to be noted that it can only be used by an office employing #5 Crossbar switching equipment, can only identify calling parties calling within that office, and cannot identify calling parties from other offices even though the other offices might be using #5 Crossbar switching equipment as well.

The information re: Trouble Recorder is not new. The Laboratory has previously reported this as a result of Bell Labs Contract and was aware of its possibilities at the time [redacted] brought it to Bureau's attention. No further action on [redacted] suggestion required.

CNC.

7/12/68

UNITED STATES GOVERNMENT

Memorandum

TO : Director, FBI

DATE: 10/22/62

CWB
FROM : Legat, London (62-new) (RUC)

SUBJECT: ~~TRACING OF ANONYMOUS TELEPHONE~~
CALLS, STOCKHOLM, SWEDEN
MISCELLANEOUS - INFORMATION CONCERNING
(LIAISON)

On 10/18/62 while in Stockholm, Sweden, I received the following information from sources at the American Embassy.

If a telephone call is received at any number in Stockholm, the call is not disconnected until both parties hang up. This means that an anonymous call can be received by an individual and after the caller hangs up the person receiving the call keeps the telephone off the hook. The person may then dial a number and request the identity of the subscriber, who has made the call. This will automatically be furnished.

This permits identification of anonymous callers, or at least allows the call to be traced to its original source. This will not work, however, if the call is received through a switchboard if the switchboard operator disconnects the call after the caller hangs up.

It is thought that this information might be of interest to the Bureau.

2 - Bureau
1 - Liaison Section (sent direct)
1 - London
CWB:vw
(4)

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102100Z
OCT 22 1962
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102100Z
OCT 22 1962
FBI

102100Z
OCT 22 1962
FBI

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FBI
OCT 22 1962
113

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OCT 22 1962
FBI

102100Z
OCT 22 1962
FBI

102100Z
OCT 22 1962
FBI

SAC, Cleveland

January 9, 1963

Director, FBI (80-789)

1 - Mr. Belmont
1 - Mr. Rosen

TRACING OF TELEPHONE CALLS

It is desired that you arrange, through established high-level contacts, for Laboratory Supervisor [redacted] to discuss the investigative aspects of the following subjects with engineers handling the listed projects at the North Electric Telcom Division, Galion, Ohio:

Tracing telephone calls
Electronic Central Office Switching Equipment
Pulse or tone dialing in local exchanges
New developments in subscriber telephone instruments
Any other developments which offer investigative possibilities

In arranging the interview, it is suggested that it be set for January 25, 1963.

In addition, it is desired that an interview be arranged for the Supervisor to discuss recent microphone developments with the Astatic Corporation, Conneaut, Ohio, on January 28, 1963. In the event it is not possible to arrange for the interviews on the above-listed dates, the Bureau should be immediately advised so that the Supervisor's itinerary may be revised. Your reply should be addressed to the attention of the FBI Laboratory.

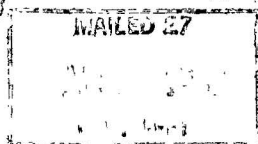
An experienced Sound-trained Agent of your office should accompany the Supervisor during the interview in the event future field liaison is required.

NOTE: See memorandum [redacted] to Mr. Conrad dated 9-12-63, captioned "TRACING OF TELEPHONE CALLS." Bureau indices negative.

- 1 - 149-00 (Destruction of Aircraft or Motor Vehicles - False Report)
1 - 80-769 (Dial Recording)

Tolson _____
Belmont _____
Mohr _____
Casper _____
Callahan _____
Conrad _____
DeLoach _____
Evans _____
Gale _____
Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Holmes _____
Gandy _____

CKC:cf (13)



MAIL ROOM ☐ TELETYPE UNIT ☐

REC'D-READING ROOM

JAN 9 1 18 PM '63

UNRECORDED COPY FILED IN 80-769-149-00-1

SAC, Buffalo

January 9, 1963

Director, FBI (80-769)

1 - Mr. Belmont
1 - Mr. Rosen

TRACING OF TELEPHONE CALLS

It is desired that you arrange, through established high-level contacts, for Laboratory Supervisor [redacted] to discuss investigative aspects of the following subjects with the engineers handling the listed projects for the Stromberg Carlson Division of General Dynamics, Rochester, New York:

- Tracing telephone calls
- Electronic Central Office Switching Equipment
- Pulse or tone dialing in local exchanges
- New developments in subscriber telephone instruments
- Any other developments which offer investigative possibilities

In arranging these interviews, it is suggested that they be set for January 23, 1963. If this date is not satisfactory, the Bureau should be immediately advised so that the Supervisor's itinerary may be revised. Your reply should be addressed to the attention of the FBI Laboratory.

An experienced Sound-trained Agent of your office should accompany the Supervisor during the interview in the event future field liaison is required.

NOTE: See memorandum [redacted] to Mr. Conrad dated 1-8-63, captioned "TRACING OF TELEPHONE CALLS." Bureau indices negative.

- 1 - 149-00 (Destruction of Aircraft or Motor Vehicles - False Report)
- 1 - 80-769 (Dial Recording)

CKC:cf (13)

Tolson _____
Belmont _____
Mohr _____
Casper _____
Callahan _____
Conrad _____
DeLoach _____
Evans _____
Gale _____
Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Holmes _____
Gandy _____

MAIL ROOM ☐ TELETYPE UNIT ☐

REC-40

80-789-115
19 JAN 10 1963

UNRECORDED COPY FILED IN

SAC, Chicago

January 9, 1963

Director, FBI (80-789)

1 - Mr. Belmont
1 - Mr. Rosen

TRACING OF TELEPHONE CALLS

It is desired that you arrange, through established high-level contacts, for Laboratory Supervisor [redacted] to discuss the investigative aspects of the following subjects with engineers handling the listed projects at the Automatic Electric Company, Subsidiary of General Telephone and Electronics, and ITT Kellogg, a Division of International Telephone and Telegraph Company, Chicago:

Tracing telephone calls
Electronic Central Office Switching Equipment
Pulse or tone dialing in local exchanges
New developments in subscriber telephone instruments
Any other developments which offer investigative possibilities

In arranging these interviews, it is suggested that they be set for January 22 and 23, 1963.

In addition, arrangements should be made for the Supervisor to conduct inquiries at Knowles Electronics and Shure Brothers, Chicago, to review recent microphone developments. It is suggested that these interviews be set for January 21 and 24, 1963, respectively.

If it is not possible to arrange for the interviews on the above-listed dates, the Bureau should be immediately advised so that the Supervisor's itinerary may be revised. Your reply should be addressed to the attention of the FBI Laboratory at an early date.

EX-118 REC-40 80-789-116
An experienced Sound-trained Agent of your office should accompany the Supervisor in the event future field liaison is required.

NOTE: See memorandum [redacted] to Mr. Conrad dated 1-8-63, captioned "TRACING OF TELEPHONE CALLS." Bureau indices negative.

1 - 149-00 (Destruction of Aircraft or Motor Vehicles - False Report)
1 - 80-769 (Dial Recording)

CKC:cf (13)

MAIL ROOM ☐ TELETYPE UNIT ☐

REC'D-READING ROOM

JAN 9 1 10 PM '63

UNRECORDED COPY FILED IN

UNITED STATES GOVERNMENT

Tolson	_____
Belmont	_____
Mohr	_____
Casper	_____
Callahan	_____
Conrad	_____
DeLoach	_____
Evans	_____
Gale	_____
Rosen	_____
Sullivan	_____
Tavel	_____
Trotter	_____
Tele. Room	_____
Holmes	_____
Gandy	_____

Memorandum

TO : Mr. Conrad *JC*

DATE: January 8, 1963

FROM : *em*SUBJECT: TRACING OF TELEPHONE CALLS

The above-captioned matter continues to be pertinent in various types of investigative cases involving kidnaping, bombing and threats of bombings. The Laboratory continues to maintain close contact with operating telephone company officials and design engineers in connection with this and other items of mutual interest.

The Laboratory Supervisors responsible for telephone call tracing problems have reviewed recently released technical reports of new electronic telephone exchange equipment being installed by such leading manufacturers of telephone central office switching equipment as ITT Kellogg, a Division of International Telephone and Telegraph Company; the Automatic Electric Company, Subsidiary of General Telephone and Electronics in Chicago; the North Electric Telcom Division, Galion, Ohio; and the Stromberg Carlson Division of General Dynamics, Rochester, New York. In view of the fact that these companies have announced installation of a number of their all electronic central office switching units, it is my opinion that the whole matter of tracing telephone calls should again be reviewed with the engineers responsible for developing this equipment. This should be done at this time with a view of reviving their thinking along the lines mentioned above and also to demonstrate the Bureau's keen interest in any developments which would prove to be of investigative value and specifically reviewing the modifications required to incorporate call tracing in this new switching equipment.

The contacts with the developing engineers, due to the highly technical nature, can best be handled by Laboratory supervisory personnel familiar with the over-all field problems in this matter. Subsequent contacts requiring field-level liaison can be handled by experienced Sound-trained Agents of the field accompanying the Laboratory Supervisors during the technical discussions.

80-789

- 1 - Mr. Belmont
- 1 - Mr. Rosen
- 1 - 149-00 (Destruction of Aircraft or Motor Vehicles - False Report)
- 1 - 80-769 (Dial Recording)

CKC
CKC:cf, (11) *if*

Enclosures *1-8-63*

EX 10E

REC-25

12 JAN 11 1963

JAN 16 1963

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149-00
80-769

Sever
ckc

7114

Memorandum to Mr. Conrad
Re: TRACING OF TELEPHONE CALLS
80-789

In addition, in our never-ending search to improve field investigative equipment, it is believed that the supervisor should contact the Astatic Corporation, Conneaut, Ohio; Knowles Electronics; and Shure Brothers in Chicago for current developments in the miniature and subminiature microphone field.

Bureau indices contain no derogatory information concerning the above-listed companies.

RECOMMENDATIONS:

(1) It is recommended that a Laboratory Supervisor contact the above-listed companies in connection with telephone tracing problem in general and specifically with regard to the tracing of calls in the all electronic telephone switching systems. Additionally, while in the area, the supervisor can handle leads regarding recent microphone developments.

(2) It is recommended that the attached letters be forwarded to the Buffalo, Cleveland and Chicago Field Divisions.

✓
GK
B
B
JWC
B

UNITED STATES GOVERNMENT

Memorandum

b6
b7C

TO : Director, FBI (80-789)
ATTENTION: FBI LABORATORY

DATE: January 11, 1963

FROM : SAC, Cleveland (66-1538)

SUBJECT: TRACING OF TELEPHONE CALLS

ReBulet 1-9-63.

On this date [redacted] Development Engineer, North Electric Company, Galion, Ohio, advised that an interview on January 25, 1963, with SA [redacted] of the Laboratory would be most satisfactory. Accordingly, the time of the interview was tentatively set for approximately 10:30 A.M. to 11:00 A.M., on that date.

Also on this date, [redacted] President, Astatic Corporation, Conneaut, Ohio, advised he and his staff would be most happy to meet with Supervisor [redacted] on January 28, 1963. The time for this interview was likewise tentatively set for between 10:30 A.M. and 11:00 A.M., on this date.

Supervisor [redacted] is requested to advise Cleveland date and time of arrival as well as whether or not he desires a hotel reservation.

SA [redacted] sound-trained Agent of the Cleveland Office, has been designated to accompany Supervisor [redacted] during the above interviews.

3-Bureau (RM)
1-FBI Laboratory
1-Cleveland
CAE:bn
(4)

EX-120

REC-71

80-789-118

15
5 JAN 14 1963

RECEIVED
FBI
JAN 14 1963

R/S
1/15/63
CKC:cf

JAN 14 11 40 AM '63

51 JAN 17 1963

JAN 14 11 02 AM '63
FBI-RECEIVED
REC.D

SEVEN, OK

F B I

Date: 1/11/63

Transmit the following in _____
(Type in plain text or code)Via AIRTEL _____
(Priority or Method of Mailing)

TO : DIRECTOR, FBI (80-789)

FROM : SAC, CHICAGO [REDACTED] b7D

SUBJECT: TRACING OF TELEPHONE CALLS

ATTN: FBI LABORATORY

Re Bureau letter 1/9/63.

b6
b7C

Pursuant to arrangements made by SA [REDACTED]
[REDACTED] on 1/11/63 Laboratory Supervisor [REDACTED]
has the following AM appointments on the dates indicated:

Knowles Electronics, Inc., 10545 Anderson
Place, Franklin Park, Illinois, on 1/21/63 in care of
[REDACTED] Sales Manager and if in the city
President.

[REDACTED] 6650 South Cicero Avenue, Chicago 38,
Illinois, on 1/22/63 in care of [REDACTED] Manager,
Switching System Development.

Automatic Electric Company, Wolf Road, North
Lake, Illinois, 1/23/63 (appropriate engineer or (s)
to be assigned interview during week of 1/13/63)

Shure Brothers, Incorporated, 222 Hartnet Avenue,
Evanston, Illinois 1/24/63 incare of [REDACTED]
Sales Manager.

- ③ - Bureau *no reply necessary
contained in Electronics Section*
1 - Chicago
LHN:MAZ
(4)

EX-120

REC-5

80-789-119
JAN 14 1963
FBI - CHICAGO

Approved: *[Signature]*
Special Agent in Charge

Sent _____ M Per _____



b7D

In all instances, other appropriate engineering personnel of the above firms when desirable, will be available to participate in the interview.

51 49
10/10/10

F B I

Date: 1/17/63

Transmit the following in _____
(Type in plain text or code)Via AIR-TEL AIR MAIL
(Priority or Method of Mailing)TO: DIRECTOR, FBI (80-789)
ATTN: FBI LABORATORY
ELECTRONICS SECTION

FROM: SAC, BUFFALO (66-781)

b6
b7C

① TRACING OF TELEPHONE CALLS

Re Bureau letter to Buffalo dated 1/9/63.

p On 1/16/63, [redacted] Assistant General Manager, Stromberg Carlson Division of General Dynamics, Rochester, N.Y., advised that he would be available for the suggested interview on 1/29/63, and would make available any engineering personnel that might be necessary.

3 - Bureau (AM)
1 - Buffalo
JDK;jrz
(4)

1 cc Lab 7114, 1/21/63 ram

80-789-
RECORDED
10 JAN 19 1963

60 JAN 22 1963

Approved: _____
Special Agent in Charge

Sent _____ M Per _____

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Conrad

b6
b7C

DATE: January 25, 1963

FROM :

SUBJECT: VISIT TO ITT* KELLOGG
CHICAGO, ILLINOIS

Tolson	_____
Belmont	_____
Mohr	_____
Casper	_____
Callahan	_____
Conrad	_____
DeLoach	_____
Evans	_____
Gale	_____
Rosen	_____
Sullivan	_____
Tavel	_____
Trotter	_____
Tele. Room	_____
Holmes	_____
Gandy	_____

With prior Bureau approval and in accordance with the FBI Laboratory's continuing policy of maintaining close technical liaison with commercial research groups, thereby keeping abreast of research which may be applicable to the Bureau's work, Laboratory Supervisor [redacted] in the company of Sound-trained Agent [redacted] of the Chicago Office, visited captioned telephone manufacturing company on January 22, 1963. A number of areas of possible interest and value were thoroughly discussed. These included,

New telephone exchange switching systems
New subscriber telephone instruments and facilities
The use of telephone lines for transmitting TV pictures
Tracing of telephone calls.

The visit of our representative at this company in connection with the above and related items was highly profitable to the Bureau. Contacts of this type are important in continuing our technical liaison with industry. The Electronics Section of the Laboratory will continue to follow all sources of information in the electronics field which may find application to the work of the Bureau. Detailed technical briefings of section supervisors will be made covering the material covered on this technical contact.

ACTION:

Following appropriate study, separate recommendations will be prepared and forwarded on those items which appear to offer application to some phase of the Bureau's operations.

80-789

* International Telephone and Telegraph

1 - Mr. Belmont

CKC:sfs (8)

1963

739

80-789-120

JAN 30 1963

7-2-63

February 6, 1963.

1 - Mr. Belmont

b6
b7C

REC'D-READING ROOM
FBI

FEB 6 1 14 PM '63

Automatic Electric Company
400 North Wolf Road
Northlake, Illinois

Dear [redacted]

through telephone call

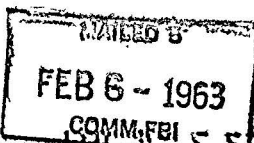
I have been advised of the splendid conference you arranged for Supervisor [redacted] of the FBI Laboratory and Special Agent [redacted] of our Chicago Field Office which was held recently in Northlake at the Automatic Electric Laboratories, Incorporated. The matters discussed at this conference are of considerable interest to this Bureau.

I am particularly grateful to you and members of your staff for the help and splendid cooperation afforded to us. I wish you would convey to Messrs. [redacted] my appreciation for their participation in the meeting.

Thank you for your continued cooperation in these matters of mutual interest.

Sincerely yours,

J. Edgar Hoover



EX-102

REC-70 60-789-121

FEB 13 1963

80-789

CKC:sfs (10)

RECEIVED (SEE NOTE PAGE 2)

FEB 13 1963

MAIL ROOM ☐ TELETYPE UNIT ☐

- Tolson
- Belmont
- Mohr
- Casper
- Callahan
- Conrad
- DeLoach
- Evans
- Gale
- Rosen
- Sullivan
- Tavel
- Trotter
- Tele. Room
- Holmes
- Gandy

[] was most cordial and extended a standing invitation for any Bureau official to return and discuss the problem further. All three A T & T officials displayed complete understanding of the problem and manifested a sincere interest in its solution.

NYO will continue to maintain liaison with A T & T through [] concerning this problem and advise the Bureau concerning any developments.

[REDACTED]

b6
b7C

NOTE:

The discussions at the AE (Automatic Electric) Laboratories were recently authorized by the Director.

[REDACTED] of the AE Laboratories arranged for these conferences through [REDACTED] of the AE Company, manufacturer of telephone equipment for the General Telephone System, the second largest telephone system in the U.S. In addition, the AE Company is a large volume supplier of telephone equipment to both domestic and foreign telephone companies. Instant conference was highly profitable to the Bureau. As a result of instant conference this company has agreed to include call tracing facilities in their new telephone exchange equipment.

Indices negative re all names listed herein.

Memo [REDACTED] to Mr. Conrad 2/1/63, indicated that discussions had been had with this company re call tracing. Subsequent to the conference and the submission of referenced memo, this company has indicated that they are preparing to include call tracing circuitry in their new equipment.

Date of Mail 2-5-63

Has been removed and placed in the Special File Room of Records Branch.

See File 66-2554-7530 for authority.

Subject JUNE MAIL Tracing Telephone calls.

Removed By 65 MAR 8 1963

File Number 80-289-122

Invoice of Contents from
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D. C.

b7D

Date 2-20-63Case Reference File Bu File 80-789Consigned to: SAC, ChicagoRe-Telephone Co. Cooperation, ReBulet 2-19-63List of Contents*RETURN TO ROOM 37A*715408ce

1 Each Listening Device.

Crypt.-Trans. _____

Document _____

Electronics _____

Physics-Chemistry _____

LFPS _____

SPECIAL INSTRUCTIONS: Mail Room, place date of shipment and registry number; Shipping Room, show date of shipment, bill of lading number and initial this invoice; then return it to section checked in column at right. After this checked section has been initialed, invoice should be placed in administrative file.

20 FEB 21 1963 37

SAC, Memphis (62-0)

July 17, 1963

Director, FBI (80-789) /23

1 Mr. Belmont

TRACING TELEPHONE CALLS

Reurlet 7/8/63, captioned Telephone Call Tracing Equipment in which you report a device devised by Southern Bell Telephone and Telegraph Company, Nashville, Tennessee, employees for checking nuisance calls.

b6
b7C

It is desired that SA [] obtain the following information from Messrs [] the designers of the system.

- (1) Will the equipment work in all types of Bell System exchanges, i.e. No. 1 and No. 5 Crossbar, Panel and Step-by-Step?
- (2) How many men are required in each exchange to trace the call?
- (3) How much equipment is required at each exchange to trace the call?
- (4) What is the size of the equipment?
- (5) What degree of technical skill and how much time is required to install the device on the line from which the call is to be traced?

You should assure the developers of the confidential manner which the Bureau will treat the information they furnish concerning this device. Your reply should be directed to the attention of the Electronics Section of the FBI Laboratory.

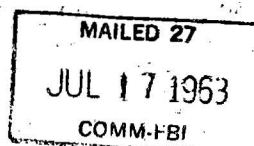
NOTE: SA [] is a Sound-trained Agent and competent to handle the above listed inquiry.

We have previously examined tone equipment for tracing telephone calls however, the application was limited to Step-by-Step offices for which adequate mechanical devices have been devised and used successfully to hold telephone calls. Step-by-Step types of switching equipment has rather limited application to the Bureau's work because of the small areas the exchanges of this type serve.

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FBI-INDICE
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UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI

DATE: 7/8/63

FROM : SAC, MEMPHIS (62-0)

ATTENTION:
FBI LABORATORY

SUBJECT: TELEPHONE CALL TRACING EQUIPMENT
LABORATORY MATTERS

b6
b7C

[redacted] Security Office, Southern Bell Telephone and Telegraph Company, Nashville, Tenn., on 6/24/63 brought the following information to the attention of SA [redacted]

[redacted] another Security Agent of the Southern Bell Telephone and Telegraph Company working in Tennessee, have devised a system for checking nuisance telephone calls which may be applicable to hoax bomb threats to airlines and to other Bureau cases in which telephone calls play a part. The basic principal of the system is the imposing of a 150 cycle tone on the telephone line at the receiving end. They have devised a small and cheaply produced instrument which can be used to produce the tone which is placed on the line for a brief moment when the call is received. This is done with the knowledge of the receiving party who is, of course, the victim in such instances.

At the Central Office serving the victim's telephone, another instrument is used. This is placed on each of the switches in the locator group which serves this line. [redacted] noted that in each locator group there are from 12 to 20 lines served and that the first three or four of these lines are the most frequently used. When the 150 cycle tone goes on the line, it activates an instrument at the Central Office which will lock the switches in the locator groups and at the same time stamp a time tape showing the time of the call. If the caller is using a telephone from the same Central Office, the call can be traced then to the caller. If it is coming from another Central Office, it can be traced to that Central Office and the equipment from the first Central Office is then moved to the new Central Office and the procedure is repeated on the next call, if any, and the location of the caller is determined.

3 - Bureau
1 - Memphis
FWN:gmh
(4)

*Reht to Memphis
7-17-63 ST-115
CKO: rjs.*

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JUL 11 1963

SEVEN

The 150-cycle tone is used because it cannot be heard by the caller. [] pointed out that the telephone receivers have a small hole in the center of the diaphragm which screens out all tones from the ear of the person receiving the calls, which are of low frequency. The reason this was done originally was to eliminate any 60-cycle tones which might be induced by the telephone lines being close to 60-cycle currents. He noted that it happens to work to the advantage of the new equipment described herein.

[] also noted that this equipment is practical only where repeated calls are being received.

It is felt that this equipment could possibly be utilized by the Bureau in cases where repeated calls are being received by airlines threatening that bombs are on planes. It also could be utilized in cases where gamblers are known to be using certain pay telephones for toll calls and are giving wrong numbers to the long-line operators to hinder the calls being traced to their location.

This is being brought to the attention of the FBI Laboratory for information purposes.

Invoice of Contents from
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D. C.

Date 7-22-63Case References 80-789Consigned to SAC, ChicagoATTN: S-4 DeskList of Contents*RETURN TO ROOM 71865*

71865

Crypt.-Trans.

Document

Electronics

Physics-Chemistry

LEPS

- | | | | |
|---|------|--|-------|
| 1 | Each | Special "Cheese Box". | _____ |
| 1 | Each | Circuit Drawing of Special "Cheese Box". | _____ |
| 2 | Each | Photographs of Special "Cheese Box". | _____ |

SPECIAL INSTRUCTIONS: Mail Room, place date of shipment and registry number; Shipping Room, show date of shipment, bill of lading number and initial this invoice. Register to Mail to section checked in column at right. After this checked section has been initialed, invoice should be placed in administrative file.

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JUL 23 1963

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789)

DATE: 8/14/63

Attention: Electronics Section, FBI Laboratory

FROM : SAC, MEMPHIS (80-851) (C)

SUBJECT: TRACING TELEPHONE CALLS

b6
b7C

Re Bureau letter to Memphis dated 7/17/63.

On 8/6/63 the new equipment developed by [redacted] and [redacted] was discussed with [redacted] and he was questioned particularly concerning matters in which the Bureau expressed an interest. In this regard he stated:

- (1) The equipment will work in all types of Bell System exchanges, i.e. No. 1 and No. 5 Crossbar, Panel, and Step-by-Step exchanges.
- (2) [redacted] stated that inasmuch as the equipment is designed to seize the switching mechanism in the various offices and hold it even though the calling party has hung up, it will require only 1 man to trace the call, however, 2 men could do it faster.
- (3) [redacted] stated that 1 piece of equipment containing 1 unit for each connector serving the victim telephone would be necessary at the central office to trace the call, pointing out that there are from 12 to 20 connectors which would be serving the victim's telephone as well as approximately 100 other telephones in the area.
- (4) [redacted] stated that each unit is approximately the size and will be the general appearance of an 8 pin octal base radio tube plus 1 or 2 auxiliary relays for alarm-type functions. These auxiliary relays may vary in size from 2 to 6 cubic inches.
- (5) [redacted] stated that in so far as technical skill is concerned he feels that once the device is developed any switchman familiar with the Bell System exchanges would be able to install the equipment. He stated that certainly any plant manager who has a general knowledge

(3)-Bureau
1-Memphis
FWN:mnr
(4)

80-789-301
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FBI
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of the switch room could install this. He stated that in so far as the time necessary to install the device is concerned, it would not take more than 30 minutes and probably less to install once the location of the connectors was determined.

[] stated that the equipment has now been turned over to the engineers for the Southern Bell Telephone and Telegraph Company in Atlanta, Georgia, for development. He stated that they will be conducting field trials in the immediate future and will start refining the equipment. He anticipates that the seizing equipment which will be utilized in the central office will probably be mounted on a strap, each strap containing 20 of the 8 pin octal base units which will have leads which can be connected directly into the connectors. He estimated that the total cost for this strap and the units would be approximately \$200.00 to \$250.00 when manufactured by Western Electric and stated that the Vice President of the Southern Bell Telephone and Telegraph Company, who is having the engineering work done, has talked in terms of having 1 set of this equipment available in each central office throughout the system.

[] specifically requested that no inquiries be made of any other representatives of Southern Bell Telephone and Telegraph Company or through AT&T, since development of the equipment is being carried out on a confidential basis at this time. He stated that he would have no objection to furnishing any information which the Bureau desires concerning the equipment and the progress of its development.

August 7, 1963

80-789-
Honorable Clarence D. Long
House of Representatives
Washington, D. C. 20515

My dear Congressman:

I have received your letter of August 5th regarding methods of tracing telephone calls.

In the course of some of our official investigations it has become necessary to attempt to trace phone calls. In these cases we have relied on the cooperation and assistance of telephone company officials and employees who are familiar with the technical aspects of their company's equipment. Therefore, I am in no position to answer your questions and perhaps you will want to contact telephone company officials for the information you are seeking.

The FBI does not maintain statistics of obscene, threatening or crank calls since the vast majority of such matters do not come within our investigative jurisdiction. Of course, a call made interstate of a threatening nature would be investigated by the FBI under the Extortion Statute and there are other instances, such as kidnaping cases and fugitive matters, when the problem becomes of interest to us.

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COMM-FBI

AUG 15 1963

MAIL ROOM ☐ TELETYPE UNIT ☐

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Honorable Clarence D. Long

I would like to point out that from our experience the time necessary to trace a call varies from locality to locality depending upon the size of the community, the number of exchanges involved and the type of equipment used by the telephone company.

Sincerely yours,
J. Edgar Hoover

NOTE: Bufiles indicate Congressman Long was elected 11-6-62 (Democrat - Maryland). Our contacts with him have been limited. He was appointed in 1948 to the Committee on Government Statistical Services of Herbert Hoover's group to study streamlining of national defense. We conducted an investigation of him under the loyalty program in 1953 based on allegations that his father and brother-in-law had communist sympathies. Investigation determined both individuals were argumentative but considered loyal to the United States. Congressman Long's questions are technical and should be more appropriately answered by telephone company personnel who work with this equipment and this problem on a day-to-day basis.

CLARENCE D. LONG
2D DISTRICT, MARYLAND

BALTIMORE COUNTY
CARROLL COUNTY
HARFORD COUNTY

COMMITTEE ON
ARMED SERVICES

1522 LONGWORTH BUILDING
WASHINGTON 25, D.C.

DISTRICT OFFICE:
200 POST OFFICE BUILDING
TOWSON 4, MARYLAND

Congress of the United States
House of Representatives
Washington, D. C.

August 5, 1963

TRACING TELEPHONE CALLS

Mr. J. Edgar Hoover, Director
Federal Bureau of Investigation
United States Department of Justice
Washington 25, D. C.

Dear Mr. Hoover:

I would be grateful if you could give me information on a number of questions which have occurred to me about present and potential methods of tracing unidentified telephone callers who utter obscenities, make blackmail threats, attempt fraud, play practical jokes, or act as nuisances.

What are the present arrangements for finding the number of the telephone from which such calls are made? How long does this process take?

Is it possible to improve this system? If so, is there any research on this problem which offers promise for the near future? What is being done in connection with this research, and by whom?

Do instant identification systems exist anywhere in the world at the present time?

Does your organization compile statistics on the number of obscene, threatening, or crank calls made each year and maintain a regular program to apprehend or discourage such callers?

Many have complained to me of an increasing number of annoying or obscene telephone calls and of difficulties in having them traced. Moreover, it is my understanding that law enforcement agencies need a faster

1. 80-789
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CORRESPONDENCE
H7

Mr. Hoover
August 5, 1963

system for tracing criminals, who make use of the telephone for such crimes as kidnapping, blackmail, and fraud. The present state of electronics technology should make an instant identification system feasible.

I am certain there are a number of commercial applications for such a device, which would be in great demand by many individuals and firms now victimized by anonymous callers.

I would be delighted to have your views on this matter.

Sincerely,

CLARENCE D. LONG

CDL:D

SAC, Memphis (80-351)

November 19, 1963

Director, FBI (80-739)

1 - Mr. Belmont

TRACING TELEPHONE CALLS

b6
b7c

ReBulet 8/26/63 captioned as above requesting that the Bureau be furnished any technical details of the principles of operation of the call tracing system being developed by [redacted] of the Southern Bell Telephone and Telegraph Company and requesting that you determine whether his system of tracing calls is effective beyond the central office in which it is installed.

As set forth in the referenced letter, no inquiry has been made concerning this development. However, recently when Supervisor [redacted] of the Laboratory was discussing technical matters with a highly placed confidential source in the Southern Bell Telephone and Telegraph Company at Birmingham, he was advised that Messrs. [redacted] had recently been in the Birmingham area to install their device on certain telephone lines receiving threatening telephone calls. While the source had no technical details concerning their installation he indicated quite clearly that at the present time the technique being developed by these two Bell System employees was limited to Step-by-Step exchanges and that the equipment would not trace a call beyond the terminating exchange. The source indicated that these two developers were returning to the Tennessee area and work on the possibility of tracing beyond the terminating central office. It is suggested that SA [redacted] again contact these designers of the system to determine what progress has been made in this area since the previous contact reported in your letter dated 8/14/63. Your reply should be directed to the attention of the Electronics Section of the FBI Laboratory.

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NOTE: SA [redacted] is a Sound-trained Agent and competent to handle the above-listed inquiry. He has previously contacted Messrs. [redacted] the designers of the above referred to equipment for tracing telephone calls.

We have previously examined tone equipment for tracing telephone calls, however, the application was limited to the Step-by-Step offices for which adequate mechanical devices have been devised and used successfully to hold telephone calls.

CKC:ssm (9)

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SAC, Memphis (80-851)

August 26, 1963

Director, FBI (80-739)

1 - Mr. Belmont

TRACING TELEPHONE CALLS

TH
Reurlet 8/14/63, captioned as above and reporting results of further discussions with [redacted] of the Southern Bell Telephone and Telegraph Company.

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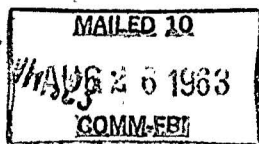
The Bureau appreciates the additional technical information forwarded. The Bureau is interested in following this development and being kept advised of its progress and status. During future contacts with Southern Bell Telephone and Telegraph Company, the Bureau would be interested in technical details of the principles of operation of this system and whether it is effective in tracing beyond the central office in which it is installed.

As requested, no inquiry relative to this item under development will be made through American Telephone and Telegraph Company but you should closely follow this matter and keep the FBI Laboratory advised of all developments.

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FEDERAL BUREAU OF INVESTIGATION
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Office Memorandum • UNITED STATES GOVERNMENT

TO : SAC, Philadelphia (157-313)

DATE: November 29, 1960

FROM : Director, FBI (80-789)

SUBJECT: UNSUB; BOMB THREAT, MILTON AREA
JUNIOR HIGH SCHOOL, MILTON, PENNSYLVANIA
10:25 a.m., 10-18-60
BOMBING MATTER

Reurlet 11-21-60, captioned as above reporting that John B. Golden, Chief of Police, NA, Milton, Pennsylvania, has arrangements to trace calls made to the school.

It is desired that you ascertain the type of central office switching equipment, number of telephone company personnel required to make a trace, and an estimate of the amount of time required to complete the trace. It should be ascertained whether mechanical and/or electronic aids are to be employed in effecting the trace.

Your reply should be addressed to the attention of the Electronics Section, FBI Laboratory, at an early date.

OK

Copy

157-313-4

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Handle right away

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b7C

SAC, New Haven (94-112)

November 20, 1963

Director, FBI (80-739)

1 - Mr. Belmont

TRACING TELEPHONE CALLS

ny
Reurlet 11/5/63, captioned "CRIMDEL" in which you report that Detective Captain William F. Holohan, New Haven Police Department, advised that the Southern New England Telephone Company has perfected some confidential electronic equipment which they permit usage of by the police department when involved in cases concerning obscene or threatening telephone calls to a citizen. He described the equipment as something that can be put on the line of the victim and the victim is instructed, upon subsequent calls of an obscene or threatening nature from the unknown subject, to listen for a while to the conversation and then dial 4. Thereafter, the victim should immediately call the police after hanging up and the police advise the telephone company that a call had been made and number 4 has been dialed.

It is desired that an experienced sound-trained agent obtain the following information from the Southern New England Telephone Company.

- (1) Will the equipment work in all types of Bell System Exchanges, i.e., No. 1 and No. 5 Crossbar, Panel and Step-by-Step?
- (2) How many men are required in each exchange to trace the call?
- (3) How much equipment is required in each exchange to trace the call?
- (4) What is the size of the equipment which must be installed at the exchange?
- (5) What degree of technical skill and how much time is required to install this device on the line from which the call is to be traced?

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(SEE NOTE PAGE TWO)

19 NOV 21 1963

MAIL ROOM ☐ TELETYPE UNIT ☐

Letter to SAC, New Haven
Re: TRACING TELEPHONE CALLS
80-769

You should assure your sources at the Southern New England Telephone Company of the confidential manner with which the Bureau will treat the information they furnished concerning this device. Your reply should be directed to the attention of the Electronics Section of the FBI Laboratory.

NOTE:

The Bureau has previously been successful in tracing telephone calls in the New Haven area because Step-by-Step types of switching equipment has been used rather extensively in the New Haven area. We are familiar with a number of devices which will permit locking up of the talking path while the call can be traced back to the originating equipment. It appears that something new may have been developed in view of the fact that the subscriber is permitted to dial the police after the call from the unknown subject has been completed and yet maintain the switch path back to the point of origin.

This inquiry is part of the Laboratory's continuing interest in the call tracing field.

Letter to SAC, Richmond
Re: TRACING TELEPHONE CALLS
80-789

You should assure your sources in the operating telephone company at Lynchburg of the confidential manner with which the Bureau will treat the information they furnished concerning this device. Your reply should be directed to the attention of the Electronics Section of the FBI Laboratory.

Above technical inquiry should be made only if your liaison with telephone company and police department is such as to permit such an inquiry to be made without complications or embarrassment.

NOTE:

This technical inquiry being made as a part of the Laboratory's continuing program of checking into technical approaches used in call tracing.

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789) DATE: 12/10/63
ATTN: ELECTRONICS SECTION, FBI LABORATORY

FROM : SAC, MEMPHIS (80-351) (P*)

SUBJECT: TRACING TELEPHONE CALLS

b6
b7C

Re Bureau letters to Memphis 8/28/63 and 11/19/63.

On November 2, 1963, developments with regard to devices being developed by [redacted] Security Agents, Southern Bell Telephone and Telegraph Company, Nashville, Tennessee, were discussed with [redacted] at Nashville.

With regard to the system for tracing telephone calls using an imposed tone which was discussed in Memphis letter to Bureau on August 14, 1963, [redacted] stated that the engineering department is still working with the device. He stated that [redacted] has in his possession a unit which has been developed to the point that it is free of "bugs" but the engineers in Atlanta, for some reason unknown to [redacted] have not completed their work. [redacted] stated, in confidence, that [redacted] Chief of Security, Southern Bell Telephone and Telegraph, Atlanta, is the one who has imposed the secrecy of development and that the reason apparently has to do with an inter-company employee suggestion system and an effort to see that proper persons get credit for development of the idea. [redacted] did not go into details on the operation of the system other than to say it could be used on any type of central office equipment and that calls could be traced through more than one central office providing more than one call was made to a victim telephone.

[redacted] stated that this equipment was not used in Birmingham. He stated that the equipment used there consisted of a series of diodes and resistors connected to the locator switches on the victim telephone locator group in the central office. This will only work on a step by step type of central office equipment. In a particular instance, a number of Negro churches and Negro leaders were receiving telephone bomb threats. SWIFT went into the central office where these telephones were served and installed on each of the twenty selector switches which serves approximately 100 telephones, one of which was the

3 - Bureau (Encls. 1)
1 - Memphis
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ENCLOSURE

REC-54

80-789-127

SEVENTH

ME 80-351

victim telephone, a diode and a resistor. These are connected in series with the receiving circuit from the victim telephone to the last selector switch. The diode acts as a valve and the resistor brings the total resistance up to the point where conversation can still be carried on but the polarity of the circuit is changed. This makes the receiving party capable of holding the switches open after the calling party hangs up, merely by holding the receiver off the switch. The victim parties were instructed to keep the line open after receiving a bomb threat and to go to another telephone and notify [] who was standing by the the central office. Since the caller could not break the circuit he was able to trace the call through the step by step switches to the panel and jack of the caller and thus identify the caller. Since the circuit was not broken the caller was put on notice, of course, that he was probably caught. [] stated that it worked successfully since the caller was in the same exchange or central office as the victims.

[] stated this same system has been used by him in Tennessee in trying to trace obscene calls to a woman. He stated it was working fine until the victim got excited and hung up before the telephone men in the central office had finished tracing the circuit. He advised she reported she could hear the caller frantically trying to break the circuit at his end of the line and he apparently realized the call was being traced. Since that time she has not received another call and [] is waiting for another case to try it again.

The progress of development of these devices will be followed and the Bureau kept advised.

At the time of the contact, [] made available to SA [] a photostatic copy of an article from an electronics magazine relating to a system to detect intruders based on infrared transmission of the body. He stated that possibly the FBI Laboratory would be interested in this if they do not already have the information. He stated he and [] are considering the use of such systems as alarm devices at their micro-wave tower locations and also in some of their plant installations which are not manned. While the article is too sophisticated to be clear to anyone who is not an expert in electronics, it appears that the system may have some application in coverage of extortion pay-offs and in protection of sensitive areas. The photostat is forwarded as an enclosure and need not be returned.

SAC, New Haven (94-112)

December 18, 1963

REC-19

Director, FBI (80-789) 128

TRACING TELEPHONE CALLS

Reurlet 12-10-63.

The circuit descriptions and drawing enclosed with your referenced letter have been reviewed in the Electronics Section of the FBI Laboratory. This circuit is different from other techniques usually employed in Step-by-Step offices, in that it permits the subscriber to use his line after the talking path has been "locked up" for tracing purposes. However, it does not appear that it has universal application to Bureau investigative work because the calling party will, no doubt, be alerted to the call tracing procedures by the dialing of digit 4 while the conversation is in progress. This system can be effectively used in cases where the victim has been returned safely and it is immaterial if the subject is made aware of this procedure.

You should return the enclosed material to [redacted] Special Agent, Office of the Security Director, Southern New England Telephone Company, 227 Church Street, New Haven, Connecticut, expressing the Bureau's appreciation for the opportunity to review the material and determine whether or not [redacted] will object to our suggesting the use of this equipment to other companies if the device can be effectively used.

b6
b7c

For your information, copies of the material have been prepared and are being retained by the Bureau. The original material enclosed with your referenced letter is being returned herewith.

Enclosures (4)

CKC:cf/(8)

SEE NOTE ON PAGE TWO.

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TELETYPE UNIT

Letter to New Haven
Re: TRACING TELEPHONE CALLS
80-789

NOTE:

Copies of the material submitted by the New Haven Office are being included in the Bureau file for possible future reference. These circuits represent a new technique in the Western Electric Step-by-Step offices. It performs the same function as the system recently patented by an engineer of the Stromberg-Carlson Division of General Dynamics, a leading manufacturer of telephone equipment for the independent telephone companies. Copies of this patent are in Bureau files. We have used a much simpler system in the past which system does not alert the subject in the holding of the talking path in a "locked up" condition. It does, however, require that an experienced craftsman remain in close proximity to the victim's line. To this extent the New Haven submitted circuits represent an improvement. However, it is felt that the lack of security more than offsets the feature of requiring personnel being on hand during the call tracing periods.

UNITED STATES GOVERNMENT

Memorandum

TO : Director, FBI (80-789)

DATE: 12/10/63

FROM : SAC, New Haven (94-112)

ATTN: ELECTRONICS SECTION
FBI LABORATORY

SUBJECT: TRACING TELEPHONE CALLS

b6
b7C

Re Bureau letter to New Haven dated November 20, 1963.

On December 10, 1963, [] Special Agent, Office of Security Director, Southern New England Telephone Company, 227 Church Street, New Haven, Conn., made available the following data, all of which is being enclosed herewith for the Bureau.

1. Mimeographed copy of circuit description, Step-By-Step System, Auxiliary Line Circuit, which furnishes descriptive data as to how auxiliary line unit (trap box) is put into operation. Included with this descriptive data is schematic diagram showing typical arrangements for associating auxiliary line unit with subscriber line. The descriptive data contained therein covers three possibilities for step-by-step frames utilized throughout the Bell Telephone system.

2. Drawing No. 93024-71-ISS-2:

This drawing sets forth a physical description of the auxiliary line unit and housing dimensions of the portable apparatus.

3. Drawing No. 93024-31-ISS-2:

This drawing includes the following data:

Figure 1 - Trace pattern for trapping call.

Figure 2 - Schematic of trap plug.

DEC 20 1963

1-cc Electronics
2-Bureau (Encls. -4) (RM)
1-New Haven
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4 ENCLOSURE

Let to New Haven
12/18/63
CKC:cf

ENCLO. BEHIND FILE

ENCLOSURE

NH 94-112

Figure 3 - Schematic of 105 volt ringing generator for audible alarm circuit. (Audible alarm circuit not used by Southern New England Telephone Co.)

Figure 4 - Schematic of audible alarm circuit.

Sketch No. 1 and associated CAD #1 and CAD #2. These sketches depict schematic diagrams of wiring for the connecting trap box.

4. Drawing No. 93024-01-ISS-2:

b6
b7C

This drawing is a schematic and wiring diagram of the trap mechanism, trap plug and associated jack circuits.

The above-mentioned enclosures are being furnished for whatever action deemed advisable by the Bureau; however, [redacted] requested that all of this data be returned to him within two weeks from the date it was furnished.

[redacted] stated that the auxiliary line units referred to in telephone company parlance as trap box, are manufactured for the Southern New England Telephone Co. by the Western Electric Company in the New Haven, Conn., area from prints furnished to the latter company by Snetco. He stated that the prints which he had made available and which are enclosed herewith for the Bureau, were used by the Western Electric Company for this purpose. He said that the estimated cost for each trap box is \$400 per unit; that this estimated price is somewhat excessive and that he feels the unit could be manufactured for approximately \$200. [redacted] said that the auxiliary line unit was originally obtained from the Illinois Bell Telephone System, and was apparently developed by the latter-mentioned company. Based upon data received from Illinois Bell, Snetco has ordered four units and delivery of these units is expected within the forthcoming week. These trap boxes will be placed in strategic locations throughout the State of Connecticut, and will be used in connection with Telephone Company investigations as well as in connection with investigative matters in which local police agencies have an interest, such matters would include obscene calls,

NH 94-112

extortion-type calls, and other objectionable telephone calls received by various subscribers throughout the State of Connecticut.

In answer to the questions propounded in referenced Bureau letter, [] furnished the following information:

b6
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1. The auxiliary line unit will only work in conjunction with a Step-By-Step Telephone System. He stated that although he is not sure of the answer in connection with No. 1 Crossbar, he does not believe such equipment would be needed in a No. 5 Crossbar System, since in the latter-mentioned system the called party has control of the line. The entire State of Connecticut, with the exception of the West Hartford area and the Telephone Company itself, utilize the Step-By-Step System. Consequently, the auxiliary line unit is of particular importance to the Southern New England Telephone Co.
2. The presence of individuals at the Telephone Company exchange itself is not necessary in order to trace the particular call in question. The auxiliary line unit traps the call and the switch train can ultimately be released from the box itself. The operator of the auxiliary line unit, however, does position himself in the telephone office which serves the telephone of the called party. In view of this, the presence of only one man is needed at the Telephone Company exchange itself, this man being the operator of the auxiliary line unit. This individual is normally an experienced Telephone Company employee and would be familiar with the exchange or telephone office involved.
3. The only equipment required in the particular exchange in order to trace a call is the auxiliary line unit. No other equipment is necessary for use in conjunction with this device. It is noted that the unit in question can only trace a call within the central office in which the call originated and cannot be used to trace a call to a telephone located within a second central office. The unit will determine, however, the identity of the line through which the telephone call came into the primary exchange from a secondary telephone exchange.

4. The physical dimensions of the auxiliary line unit are approximately $1\frac{1}{2}$ " X $8\frac{1}{2}$ " X $8\frac{1}{2}$ ". Specific information as to physical size and appearance of the unit are set forth in Drawing No. 93024-71-ISS-2.

5. According to [redacted] only a nominal amount of technical skill is required in order that the auxiliary line unit may be properly operated. This device is normally installed on the Telephone Company main frame and consequently the person installing it would have sufficient knowledge of Telephone Company equipment in order to locate and apply the unit to the necessary telephone pairs. The device may be installed within seven to ten minutes and according to [redacted] a novice could be instructed in the operation of the unit within a very short period of time.

[redacted] is aware of the confidential manner in which the Bureau will treat the information furnished concerning auxiliary line unit. He said that in the event the FBI Laboratory is further interested in this device, he would be glad to cooperate in any manner and would make the device available for inspection by a qualified laboratory expert.

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789)
Attention: Electronics Section
FBI Laboratory

DATE: 12/19/63

FROM : *Jip/pj*
SAC, RICHMOND (157-670)

b6
b7c

SUBJECT: *o*
TRACING TELEPHONE CALLS

Be
Reference is made to Bureau letter to Richmond dated 12/4/63.

[redacted] District Plant Superintendent, Chesapeake and Potomac Telephone Company (C and P Telephone Company), Lynchburg, Virginia, was contacted by SAs [redacted] and [redacted] on December 12, 1963 concerning the tracing of telephone calls by the C and P Telephone Company at Lynchburg, Virginia.

From the information supplied by [redacted] concerning the tracing of telephone calls by the C and P Telephone Company at Lynchburg, the procedure followed by C and P Telephone Company at Lynchburg is similar to the procedure followed by most telephone companies.

- (1) The equipment used by the C and P Telephone Company at Lynchburg is step by step equipment and the procedure used by the C and P Telephone Company at Lynchburg may only be used where the equipment is step by step. *W*

The procedure followed by the C and P Telephone Company at Lynchburg may only be followed in the exchange located within any one central office at Lynchburg and may not be followed where tracing of telephone calls is desired between exchanges or where trunk facilities are used.

- (2) Only one telephone employee, who is a switchman, in the given exchange is required to trace the call.

② - Bureau - *cc lib with*
1 - Richmond
ULS:mfh
(3)

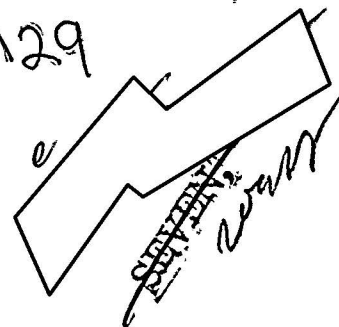
REC 33

80-789- 129

6 DEC 30 1963

EX-103

304
58 JAN 7 1964



RH 157-670

(3) Where the C and P Telephone Company at Lynchburg desires to trace a telephone call made to a certain subscriber's telephone, in such instances a one thousand ohm resistor in series to ground is placed on each of the ten switches last in line in the central office prior to such subscriber's phone. When a call is received by this subscriber, the call may be locked in circuit by keeping the hand set of the subscriber off the instrument to hold the circuit open and notification to the switchman at central office will allow him to trace that call as long as the subscriber's phone is kept open.

This procedure may be followed only in step by step equipment in the same exchange at a given central office.

(4) Ten one thousand ohm resistors are required as equipment installed on ten switches to trace the calls.

(5) Any switchman working in the switch room of a telephone company is able to install the resistors and trace the telephone calls.

(6) After a telephone call is received by a subscriber, it is necessary that the subscriber keep his line open by not placing the hand set back on the instrument and that the switchman who is to trace the call be notified, or it is necessary that the subscriber not place the hand set on the instrument after the call is received and someone connected with the telephone company monitor the line so they will be aware an incoming call has been received.

(7) The call may be traced within a period of one minute or more in the central office under the above procedure or it can be traced at the convenience of the switchman providing the above procedure is followed. The resistor is placed between the sleeve and ground in each of the ten switches.

RH 157-670

[] advised that the above procedure is very simple and would probably be known by any wire chief or central office foreman.

[] has been contacted by SA [] on numerous previous occasions and he has always cooperated with the Bureau. He has been advised on this and previous matters that any information supplied by him is confidential and that the information furnished by him on December 12, 1963 will be treated by the Bureau as a confidential matter.

UNITED STATES GOVERNMENT

Memorandum

b6
b7C

TO : Director, FBI (80-789)

FROM : *[Signature]* SAC, New Haven (66-93)

SUBJECT: *[Circle]* TRACING TELEPHONE CALLS

DATE: 12/31/63

L Re Bureau letter to New Haven 12/18/63.

[Signature] The material originally made available by *[Redacted]* Special Agent, Southern New England Telephone Company, New Haven, Conn., on 12/10/63, has been returned to him at which time the Bureau's appreciation was expressed for the opportunity to review this data.

On 12/30/63, *[Redacted]* Security Director, Southern New England Telephone Company, 227 Church Street, New Haven, Conn., advised that the American Telephone and Telegraph Company is presently seeking to obtain a patent on the auxiliary line unit, diagrams of which were previously furnished to the Bureau. He stated that other telephone companies in the United States undoubtedly know of the existence of this device, however, he stated that in view of the fact that a patent on the equipment is presently being sought, he requested that specific information concerning the equipment should not be disseminated at this time.

[Redacted] stated that he desired the question of dissemination of the equipment be posed in each individual case where its use is contemplated or is considered feasible, and that an answer by the Southern New England Telephone Company could then be obtained with respect to the specific case where use of the equipment is contemplated. In this regard, *[Redacted]* said that he is entirely willing to offer any assistance he can and that he would gladly confer on each occasion where dissemination of information concerning the auxiliary line unit is being considered. He said that were it not for the fact that a patent is being sought for this equipment, he would have no hesitation in agreeing as to the dissemination of the information by the Bureau.

In view of the above-mentioned information, it is suggested that the Bureau consult with *[Redacted]* through the New Haven Office, prior to the dissemination of pertinent information mentioned above in each specific case where such is contemplated.

[Signature] Bureau (RM) / cc retained in Electronics Section on 14 JAN 2 1964
1-New Haven
WCH/lrf
(3)

[Signature]
JAN 9 1964

SEVEN

UNITED STATES GOVERNMENT

Memorandum

TO : Director, FBI (80-789)

DATE: 4/14/64

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FROM : SAC, Memphis (80-351) P*

ATTN: ELECTRONICS SECTION
FBI LABORATORY

SUBJECT: TRACING TELEPHONE CALLS

On 4/10/64, developments with regard to devices being developed by [redacted] Security Agents, Southern Bell Telephone and Telegraph Co., were discussed with [redacted] at Memphis. [redacted] was recently transferred to the Memphis Security Office of Southern Bell. He furnished the following information:

He stated that [redacted] together with an engineer from the Atlanta Office of Southern Bell, is to be in New York City on 4/13/64 to discuss the telephone tracing device with engineers from the New York and Newark Offices. These offices, as well as the Atlanta Office, had been working separately on similar devices. A slight refinement has been made to the original device developed by [redacted]. Through the use of a scanner installed at central offices it is possible to cover as many as 100 incoming lines at the central offices. The scanner can lock any incoming call in the locator group if the call lasts as long as 41 seconds.

Weaknesses in the original device occurred when the victim's number was called after the line was locked. In this situation, there would be no busy signal, although the line was open, and the second caller's line would be dead. According to [redacted] the scanning device would eliminate this and would result in fewer service complaints.

[redacted] reported that they have also made some improvements in regard to handling current tracing equipment utilized

2 Bureau
1 Memphis
KWD:BN
(3)

No reply necessary

1cc retained in Electronics Section

*O/K
4/21/64*

80-789

NOT RECORDED
12 APR 21 1964

61 APR 24 1964

SEVEN

ME 80-351

which consists of a series of diodes and resistors connected to the locator switches on the victim's telephone locator group in the central office. As previously noted, this type installation will only work on a step by step type of central office equipment. He stated the improvement is possible where suspects have been identified. It is possible to route the suspect's outgoing calls through one line finder circuit. He indicated he had been able to identify the source of harrassing calls through this method recently.

[] also indicated that he is currently studying the possibility of improving the security of lines, which would be of interest to the FBI. He stated that he is currently working with a thin lacquer to which a small amount of fluorescence is added. He stated by placing a thin coating of lacquer, which is invisible to the naked eye, to the ends of connecting lines, it is possible to detect through the use of an ultra violet light, whether or not the line has been tampered with. In addition, he stated that a small bridge of lacquer could be brushed lightly on the edges of circuit boxes and again the ultra violet light would detect any disturbance or entry since the last check.

[] stated that he would keep us informed of the developments in these matters which are of interest.

SAC, Baltimore (80-422)

May 1, 1964

Director, FBI (80-739) - 131

1 - Mr. Belmont
1 - Mr. Evans (Attention:
Mr. McHale)

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b7c

CHEESE BOX
POLICE COOPERATION

Reurlet 4/24/64, in captioned matter, transmitting a circuit diagram of a cheese box and requesting that the Laboratory describe the operation of the circuit.

In an operation involving this type of equipment the bookmaker usually orders telephone service at two different locations using fictitious names. These locations must be sufficiently close for the bookmaker to run wires from a common point to each telephone instrument. The cheese box is installed at the common point to cross connect the two telephones in a manner set forth in the attached technical description.

The bookmaker will, in some instances, set up a business as a front so that he can order two telephones with unrelated numbers installed at one point. He will then wire the cheese box so as to cross connect the two telephones.

The more sophisticated installations of this type involve the use of multiple appearances of telephone service (points where cable wires serving telephones reappear but are not used for telephone service). In this type of operation, the bookmaker must be knowledgeable of telephone wire distribution systems or solicit the cooperation of telephone company employees.

It is the usual practice for bookmakers using this type of equipment to have one telephone number for his own use that is never disseminated to the betters. The number for the second telephone and a calling schedule are given to his betters. The bookmaker will set up the conversation path between himself and the better by calling his number from any telephone in the local dialing area. The bookmaker will remain on the line during the scheduled calling period. As set out in the attached technical description, the ringing of the telephone will operate equipment to cross connect the two telephone lines appearing at the cheese box. As the betters call in they talk to the

Enclosures (2)

CKC:ssm (11)

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Trotter _____
Tele. Room _____
Holmes _____
Gandy _____

MAIL ROOM ☒ TELETYPE UNIT ☐

Letter to SAC, Baltimore
Re: CHEESE BOX
POLICE COOPERATION
80-789

bookmaker through the cheese box. An arrangement, such as this, permits the gambler to move his operation frequently and minimizes the possibilities of tracing a call to his center of operation.

Attached is a technical description of the operation of the cheese box picked up by the Baltimore County Police Bureau in a gambling raid. The circuit diagram is being returned herewith.

May 1, 1964

**TECHNICAL DESCRIPTION OF
CHEESE BOX PICKED UP BY
THE BALTIMORE COUNTY POLICE BUREAU**

A study of the submitted diagram indicates that the cheese box picked up by the Baltimore County Police operates as follows:

The black and green wires connect to the telephone service used by the gambler and the red and white wires connect to the telephone called by the betters. The unit should be connected to a source of 110 volts AC power for the operation of Relay 1 as described below.

The ringing pulses for a call coming into the cheese box over the black and green wires will operate Relay 2 causing two sets of contacts to operate. One set of contacts are across the line to put a short across the line to cut off ringing (tantamount to lifting the handset of the telephone); the other set of contacts closes a circuit to apply 110 volts AC to the coil of Relay 1.

Relay 1 is a mechanical latching relay which will remain in one mode until the coil is again energized. When first energized, this relay closes the ringing path for the betters' line so that ringing pulses on the betters' line will flow from the white lead to the 1.0 mfd condenser, through the coil of Relay 3, the closed contacts of Relay 1 to the red wire. When a better calls in on the second line, Relay 3 is energized by the ringing pulse which causes the contacts to close momentarily thus causing a momentary short on this line to cut off the ringing on the line.

Once the ringing has been cut off on the betters' line a conversation path is set up between the two lines through the 1.0 mfd condensers connected between the two telephone lines.

The bookmaker continues to hold his line open for subsequent calls made to the betters' line. The betters' line remains open as long as the better is on the line and becomes available to other callers (betters) when the caller hangs up (calling party control).

80-787-131

ENCLOSURE

It should be pointed out that Relays 2 and 3 operate so fast and short the line so quickly that they cut off the ringing voltage before the standard telephone bell connected to the line will sound.

The bookmaker can suspend operation by hanging up the telephone set he is calling from. This action will energize Relay 2 which in turn will apply 110 volts AC to energize Relay 1 momentarily which action will change the contacts of this relay to the open mode thus opening up the ringing path for Relay 3. This causes the betters to get an incomplete or "no answer" response to his call.

This circuit makes no provision for handling calls in areas where telephone exchanges are equipped with time out features to automatically disconnect called telephones from the line after the line becomes open (hung up mode). By modifying the cheese box so that Relay 1 will close the gambler's telephone line through a coil connected across the line when it is in the ready or operate mode, the unit can be made to successfully operate in those areas where time out features prevail.

The relays used in this unit are "over-the-counter" items that can be purchased from local electronic stores.

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI
Attention: FBI Laboratory
Electronics Section
FROM : SAC, BALTIMORE (80-422)

DATE: 4/24/64

SUBJECT: CHEESE BOX
POLICE COOPERATION

Enclosed is a circuit diagram of a cheese box obtained by Baltimore County Police Bureau in a gambling raid. The Laboratory is undoubtedly familiar with the operation of these units. It is requested that Baltimore be advised concerning the operation of these units.

Tracing Telephone Calls

1cc Attached - Electronics
2 - Bureau (Enc. 1)
1 - Baltimore
MCM:df1
(3)

ENCLOSURE - *Returned to Baltimore with letter 5/1/64* H

64 to B.P.
5-1-64
REC-28
EX-112
80-780

MAY 5 1964

b6
b7C

SEVEN

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI
ATTENTION: FBI LABORATORY

FROM : SAC, ALBANY (94-0)

SUBJECT: ELECTRONIC DEVICE USED TO
MAKE LONG-DISTANCE TELEPHONE CALLS
RESEARCH MATTERS

DATE: 7/17/64

Tracing Telephone Calls

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Enclosed herewith as of possible interest to the Laboratory is a diagram of a device which was made and used by a Cornell University student, [redacted] to make long distance telephone calls without paying for same. This diagram was furnished to SA PETER F. MAXSON on a highly confidential basis by [redacted] Supervisor, Cornell University Safety Division, Ithaca, New York. The fact that the Bureau has a copy of this diagram should not be made known to any telephone company representative.

[redacted] was arrested early last spring after he had successfully used this device quite extensively. His method of operation was to place a coil running from the device next to a telephone. He would then dial the information operator for the area where he wanted to place his call. This would enable him to hold this line by keeping his phone off the hook after he had talked with the information operator. He would then press the buttons numbered one through zero (see diagram) and these would produce the tone frequencies necessary to complete his call to the desired number. According to [redacted] these tone frequencies are a closely guarded secret of the companies in the Bell System.

3- Bureau (Encl. 1) (RM) *enc + cc returns in Electronics Section*
1- Albany
PFM:web
(4)

No reply necessary **REC-77** **80-789-132**

ENCLOSURE

56 AUG 14 1964

25 JUL 20 1964
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September 15, 1964

PERSONAL

REC 55 80-789-133

EX 110

SEP 15 11 10 AM '64
REC'D-READING ROOM
FBI

[redacted]
Federal Bureau of Investigation
Los Angeles, California

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Dear [redacted]

Thank you very much for the suggestion regarding certain equipment which might prove to be beneficial in our operations. This proposal is being carefully evaluated and I will let you know if it is adopted.

The interest and initiative which prompted you to bring this matter to my attention are indeed appreciated.

Sincerely yours,

J. Edgar Hoover

MAILED 19

SEP 15 1964

COMM-FBI

- 2 - Los Angeles 1 - Field personnel file
1 - Suggestion file

1 - Personnel file of SA [redacted]

ML:jmn

(6) (Suggestion #189-65 dated 9/8/64)

NOTE: Suggester advises September 5, 1964, issue of The New York Times newspaper reported patent number 3,147,344 had just been issued to [redacted] of Ann Arbor, Michigan, for a device described as a call-holding switch which can be installed on a telephone receiver without any installation at central phone office. When a call is received, which should be traced, the switch is thrown at the receiver, resulting in prevention of breaking of circuit even if caller hangs up phone.

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Callahan _____
Conrad _____
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Evans _____
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Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Holmes _____
Gandy _____

MAIL ROOM ☐ TELETYPE UNIT ☐

SEE PAGE TWO

NOTE CONTINUED

Caller is not alerted to the tracing as is case if recipient extends conversation to permit normal tracing through phone exchanges prior to breaking the circuit. Suggests device be examined for FBI field use.

Referred to the Laboratory Division for views and recommendations.

#189-65

Date

September 8, 1964

To:

Director, FBI

From: (Suggester's name)

SA [redacted]

Division of Assignment

LOS ANGELES

SUGGESTION

The September 5, 1964 issue of The New York Times newspaper reports The U. S. Patent Office has just issued patent number 3,147,344 on a device to its inventor. [redacted] teen-age son of [redacted] of Ann Arbor, Michigan. The device is described as a call-holding switch which can be installed on a telephone receiver without any installation at the central phone office. When a call is received which it is desired to trace, the switch is thrown at the receiver, resulting in the prevention of the breaking of the circuit even if the caller hangs up at his end of the line. The caller is not alerted to the tracing as might occur if recipient extends the conversation to permit normal tracing through phone exchanges prior to breaking the circuit. Suggest device be examined for FBI field use.

Tracing of Telephone Calls

Current practice or rule (Include manual citation as well as facts)

No similar device or adaptation is available for use.

Advantages of suggestion and annual savings (include basis for estimate)

Advantages: Device would be of extremely valuable use in solution of cases involving violation of federal extortion and kidnapping laws, and solution of harrassment of victims and witnesses resulting from attempts to obstruct justice. It would also be extremely useful to local law enforcement agencies in investigation of lewd telephone calls, harrassment by telephone calls, false reports of bombings and other catastrophic predictions, and similar matters.

Savings: Great savings in investigative time due to lack of clues in ordinary circumstances, and lack of proof because of use of telephone by suspects. Greatest value of device would be in assistance to early successful solution, thus preventing unnecessary investigation.

Disadvantages of suggestion

None foreseen provided cost of device is within reasonable limits. Suggester does not desire to be considered for award.

(The use by the United States of my suggestion shall not form the basis of a claim or assignment upon the United States. I understand that I will be considered for award within two years after submission.)



Mr.



Mrs.



Miss

Recommendations and comments of Division Head

From an investigative view the device would appear to have merit. It is recommended this suggestion be referred to the FBI Laboratory for consideration as to the technical practicality.

(Do not write in this space for Bureau use only)

REC 55

80-789-133

SEP 10 1964

EX 110

3 - Bureau

1 - Los Angeles (66-8)

UNITED STATES GOVERNMENT

Memorandum

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Sullivan _____
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Trotter _____
Tele. Room _____
Holmes _____

TO : Mr. Conrad *JWC*

DATE: September 17, 1964

FROM :

SUBJECT:

SUGGESTION MATTER

SUGGESTION NUMBER 189-65

SUBMITTED BY SA [REDACTED]

LOS ANGELES FIELD DIVISION

WIR
TRACING OF TELEPHONE CALLS

The suggestion by the above-named agent concerns possible Bureau application of patent 3,147,344 issued September 1, 1964, to [REDACTED] Ann Arbor, Michigan, for a device to assist in tracing telephone calls. This patent has been reviewed by the Laboratory and while a patent was issued the device does not offer an advantage over existing methods.

The inventor points out that his device is designed for Step-by-Step type of central office switching systems but in his opinion it should work on all types of central office switching equipment. There are several types. This invention makes no provision for tracing calls originating from distant or foreign exchanges and from an analysis of the circuits described, it is the Bureau's present experience that the device will not work on cross-bar and panel types of switching systems (two of several switching systems used throughout the country).

There are many other patents which lock up the switching paths to assist in tracing calls in Step-by-Step systems. The Bureau has on many occasions in the past, with telephone company cooperation, taken advantage of less complicated and more easily installed call tracing aids in Step-by-Step central office equipment. It is noted that the local telephone people, knowing their own system, are in the best position to know which techniques can be best applied by telephone personnel.

RECOMMENDATION:

It is recommended that above information be forwarded to the Training Division for appropriate action.

CKC
CKC:bwd (9)
lud

EX-112 REC-43

80-789-134
11 SEP 24 1964

1 - Mr. Belmont

1 - Mr. Mohr

1 - Mr. Casper (Att. [REDACTED] Rm. 5302)

1 - Mr. Conrad

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SEE ADDENDUM OF THE TRAINING DIVISION ON PAGE TWO
2 Sp/Me

Memo [redacted] to Conrad
Re: Suggestion Matter
Suggestion Number 189-65
Submitted by SA [redacted]
Los Angeles Field Division

b6
b7C

ADDENDUM OF THE TRAINING DIVISION

ML:jmn, [redacted] 9/22/64

Since the Laboratory Division has reviewed the patent suggested by SA Lane for use in our operations and has found it to be lacking in certain respects, the Training Division feels no further action is necessary in regard to this proposal.

RECOMMENDATION: That the suggestion not be adopted. On approval, no further action is necessary with regard to the suggester since he has been thanked by prior letter.

[Handwritten signature] *[Handwritten signature]*

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Conrad

DATE: September 14, 1964

FROM : [REDACTED]

SUBJECT: TRACING TELEPHONE CALLS

Tolson _____
Belmont _____
Mohr _____
Casper _____
Callahan _____
Conrad _____
DeLoach _____
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There follows the technical details of a recent patent issued to [REDACTED] Ann Arbor, Michigan. This is being submitted for record purposes only.

On September 1, 1964, Patent Number 3,147,344 was issued to [REDACTED] a minor residing at [REDACTED] Michigan. The original patent was filed September 26, 1960, at which time it was given serial number 58,509. The patent which was granted September 1, 1964, has nine claims (C. L. 179-18). It is claimed by the inventor that this patent is designed to hold the switch train to assist in tracing anonymous calls and while it was designed for Step-by-Step types of central office switching systems, he sees no reason why it will not work on all types of telephone systems. [REDACTED] in his claims indicates that it is not necessary for the called party to indicate to the calling party that the switching train is being locked up, but he does require a separate line in the victim's home in order to alert the central office to the call tracing request.

The system employed by [REDACTED] is nothing new as far as Step-by-Step equipment is concerned in that it will reverse the supervision of the line from calling to called subscriber. He makes no provision for interoffice trunking and therefore, his patent represents nothing new or novel.

It should be pointed out that there are a number of patents covering this type of supervisory control equipment for Step-by-Step offices but to date there have been no patents which appear to be practical for cross-bar and panel central office switching systems.

It does not appear that this patent will have application to Bureau work in tracing telephone calls.

ACTION: None. For information. EX-110

80-790 *LT* 80-780

10 Mr. Conrad

CKC:ev (5)

UNITED STATES GOVERNMENT

Memorandum

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b7C

TO : DIRECTOR, FBI
ATTN: FBI Laboratory

DATE: 10/1/64

FROM : SAC, BALTIMORE (80-595)

SUBJECT: TELEPHONE CALLS TRACING DEVICE

[redacted] Former Special Agent, currently [redacted] Baltimore Criminal Justice Commission, 22 Light Street, Baltimore, Maryland has called the attention of the Baltimore Office to an article which appeared in "The Evening Sun", a Baltimore newspaper, for September 5, 1964, concerning a telephone call tracing device. The article was taken from the New York Times news service and was date lined at Washington, D.C. September 5, 1964. It stated that [redacted] son of [redacted] of Ann Arbor was granted a patent that week for a telephone call holding switch. [redacted] had stated that when a subscriber complains, this switch can be attached to the holding instrument but no modification is needed at the central office. When subjected to an anonymous call, the subscriber throws the switch which prevents the connection from being broken. Using another telephone, he asks the central office to determine the origin of the offensive call.

REC'D
FBI
LAB
OCT 1 1964
In the event equipment of this type has not been previously brought to the attention of the FBI Lab., the Lab may desire to make inquiry concerning the feasibility of this invention for use in kidnapping and extortion cases.

We have reviewed the patent. It offers nothing new from an investigative standpoint. A memo was submitted at the time patent was reviewed 10/5/64

NOT RECORDED

3 OCT 5 1964

2- Bureau
1- Baltimore
JSR:mjt
(3)

319
70 OCT 21 1964

SEVEN

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789)

DATE: 11/25/64

ATTENTION: Electronics Section, FBI Laboratory

FROM : SAC, MEMPHIS (80-351) (C)

SUBJECT: TRACING TELEPHONE CALLS
Bufile: 80-789

b6
b7C

Re Bureau routing slip 10/21/64.

On 11/19/64 [redacted] Security Agent, Southern Bell Telephone and Telegraph Company, Memphis, Tennessee, advised SA [redacted] that there have been no technical developments in this matter so far as he knows. He pointed out that the device to trace telephone calls has been proved to be feasible and has worked successfully. He noted that the entire project has been taken over, however, by Bell Laboratories and that he does not know the present status of the program. He stated the device may be perfected, modified, or otherwise changed by Bell Laboratories and may or may not be produced on a mass basis by Bell Laboratories.

[redacted] pointed out that the existence of this device presents numerous problems of a policy nature for the telephone companies. He stated that it will no doubt be a subject of high level discussion by the American Telephone and Telegraph Company as to the manner in which the device is to be used by the telephone company provided it is mass-produced by Bell Laboratories. He stated that such questions as the extent to which the device is publicized will be a matter for top management as well as the feasibility of setting up a tariff schedule under which the telephone company will charge for its use as it does other pieces of its equipment. E

REC- 66

3-Bureau
1-Memphis
JHK:beb
(4)

*1 cc - Bureau in E.L. Jones Sec. letter
No repl. mem. from Memphis
Submitting this document to AT&T
for handling by Memphis Security Unit
JHK:beb*

NOV 23 1964

[] suggested that the Bureau could probably obtain more up-to-date information regarding this device from Bell Laboratories through its sources therein. He strongly requested that any contacts with Bell Laboratories by the Bureau be made on a very discrete and confidential basis. He pointed out that the device is confidential even within the Bell system and that the various Bell affiliates have all been working on some version of this device in order to accomplish the same problem of tracing calls. He noted that all of the telephone companies are plagued with obscene and hoax calls and have a great need for such a device to trace calls.

[] reiterated his desire to cooperate fully with the Bureau and with this office but pointed out that the state of development of the device is presently in the hands of Bell Laboratories and any further information should be obtained from them.

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b7c

80-789

April 15, 1965

Maser Optics, Inc.
89 Brighton Avenue
Boston 34, Massachusetts

Tracing Telephone Calls

Gentlemen:

The Federal Bureau of Investigation is interested in obtaining available technical information and specifications pertaining to a portable hand-held battery operated pulsed laser (similar in performance to your Series 600 unit) but having an accurate method of sighting the device at targets up to 250 feet away. The power pack may be separate from the head. Please furnish details regarding price and any leasing arrangements for such a device. It will be necessary to evaluate any available device before considering purchase.

Since this material might have possible uses in connection with official investigations, it would be appreciated if you would afford confidential treatment to this inquiry. Please direct your reply for the attention of the Federal Bureau of Investigation Laboratory.

Very truly yours,

CTA:ev
 (4)

J. Edgar Hoover
 John Edgar Hoover
 Director

80-789-137

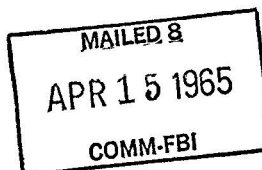
NOTE: Bureau files contain no information which would prohibit this inquiry.

NOT RECORDED

8 APR 16 1965

Tolson _____
 Belmont _____
 Mohr _____
 DeLoach _____
 Casper _____
 Callahan _____
 Conrad _____
 Evans _____
 Gale _____
 Rosen _____
 Sullivan _____
 Tavel _____
 Trotter _____
 Tele. Room _____
 Holmes _____
 Gandy _____

128 JWC/KW/TW



MAIL ROOM ☒ TELETYPE UNIT ☐

FBI

Date: 4-14-65

Transmit the following in _____
(Type in plain text or code)Via AIRTEL AIR MAIL
(Priority)

Mr. Tolson	✓
Mr. Belmont	✓
Mr. Mohr	✓
Mr. DeLoach	✓
Mr. Casper	✓
Mr. Callahan	✓
Mr. Felt	✓
Mr. Gale	✓
Mr. Rosen	✓
Mr. Sullivan	✓
Mr. Tavel	✓
Mr. Trotter	✓
Tele. Room	✓
Miss Holmes	✓
Miss Gandy	✓

TO: DIRECTOR, FBI

FROM: SAC, BIRMINGHAM (62-0)

ANONYMOUS TELEPHONE CALL RECEIVED AT
BIRMINGHAM OFFICE 9:35 P.M., 4-13-65
MISCELLANEOUS

b6
b7c*Tracing Telephone Calls*

At 9:35 p.m. on 4-13-65 Security Patrol Clerk [] answered an incoming call in the Birmingham Office. There was no response on the other end of the line; however, he heard a loud ticking sound such as the ticking of the clock, which lasted for several seconds, and the caller then hung up. This call could possibly have been a prank call.

Since there is some implication that the caller may have been connected in some way with the Greenbombs or Bapbomb investigations, arrangements were made on 4-14-65, through [] State Security Director, Southern Bell Telephone and Telegraph Company, to place "traps" on the incoming lines of the Birmingham Office. These traps will permit the tracing of any similar call received while the traps are in operation and will in no way hamper or interfere with normal telephone service.

I didn't know this could be done
The above is for the Bureau's information, and the Bureau will be promptly advised of any other developments regarding this matter.

3-Bureau
1-Birmingham
EJI:rlg
(4)

REC-24

80-789-138

EXT 105

21 APR 16 1965

cc - Wick

cc R

Approved: *347*
Special Agent in Charge

Sent _____ M Per _____

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Conrad

DATE: April 17, 1965

FROM : [Redacted]

SUBJECT:

* ANONYMOUS TELEPHONE CALL RECEIVED
AT BIRMINGHAM OFFICE 9:35 P.M. 4-13-65
MISCELLANEOUS

Airtel 4-14-65, from Birmingham, captioned as above, advised of the receipt of an anonymous telephone call in which nothing was said by the caller and only a loud clicking similar to the ticking of a clock was heard for several seconds before the caller hung up. Arrangements were made by the office to have "traps" placed on the incoming lines to permit tracing a similar call while the "traps" are in operation. The Director noted "I didn't know this could be done."

The word "trap" is a broad term used by telephone company personnel for electrical devices that assist in tracing telephone calls. In the case of Birmingham it is an electrical device that changes the control of the conversation path from the calling party to the called party. Normal telephone company engineering practices provide the calling party with the ability to maintain the conversation path and when he hangs up the lines are disconnected. The "trap" in this case reverses this procedure and provides a method for our Birmingham Office to maintain the conversation path back to the calling telephone until the call has been traced manually by telephone personnel.

Tracing Telephone Calls

This particular type of "trap" has been used previously in the Birmingham area. Also, Bureau letter 3-28-57 to Boston and selected offices described this type device (80-789). In addition, its use and limitations have been described to kidnaping schools and to sound-trained personnel. Generally speaking the success of "traps" is limited to availability of telephone personnel to manually trace the conversation path and to their knowledge of the systems involved in the trace. Too, the "traps" restrict the tracing to the called exchange, therefore they serve a limited purpose if the calling party is making the call from another telephone exchange.

80-789

- 1 - Mr. Belmont
- 1 - Mr. Mohr
- 1 - Mr. DeLoach
- 1 - Mr. Gale
- 1 - Mr. Rosen
- 1 - Mr. Sullivan
- 1 - Mr. Conrad

SENT DIRECTOR

4-19-65

CONTINUED OVER

Tolson
Belmont
Mohr
DeLoach
Casper
Callahan
Conrad
Felt
Gale
Rosen
Sullivan
Tavel
Trotter
Tele. Room
Holmes
Gandy

b6
b7C

EX 105

REC-24

80-789-139

18 APR 30 1965

Memorandum to Mr. Conrad
Re: ANONYMOUS TELEPHONE CALL RECEIVED
AT BIRMINGHAM OFFICE 9:35 P.M. 4-13-65
MISCELLANEOUS
80-789.

Tracing of telephone calls continues to receive prime consideration in our technical discussions with telephone design engineers. As previously reported, our close liaison with the developers of new equipment and our continuing interest in this matter has resulted in the newly designed telephone exchange equipment having call tracing features.

As in the past, the Laboratory will continue to aggressively follow this entire matter closely and will keep the Bureau advised of any new developments which will assist in telephone call tracing.

ACTION: None. For information.

UNITED STATES GOVERNMENT

Memorandum

TO : *gmd* Mr. Conrad

FROM : [Redacted]

SUBJECT: TELEPHONE CALL TRACING

Tracing Telephone Calls

DATE: May 11, 1966

- 1 - Mr. Mohr
- 1 - Mr. DeLoach
- 1 - Mr. Wick
- 1 - Mr. Rosen
- 1 - Mr. Conrad

Tolson _____
DeLoach _____
Mohr _____
Bishop _____
Casper _____
Callahan _____
Conrad _____
Felt _____
Gale _____
Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Holmes _____
Gandy _____

"The Washington Daily News," May 11, 1966, carried an article captioned "'Detective' Now Nails Dirt Callers." The article reported that a little device no bigger than the end of a pencil in use for a short time is effectively catching elusive obscene phone callers. The Director inquired, "What about this?"

As a result of receiving annoyance call complaints from customers at a rate estimated to exceed 1,500,000 per year, the Bell System has instituted a policy change in regard to telephone call tracing. This policy change recently directed to all operating companies of the Bell System by American Telephone and Telegraph Company instructs that the past generally negative attitude of the companies regarding obscene call complaints must be abandoned and that a positive aggressive policy of using every available legitimate means to combat annoyance calling must be implemented. Part of the new policy is the publicizing of successful call tracings for the expressed purpose of leading the public to believe that calls can be traced and that the telephone companies have equipment and techniques to successfully accomplish call tracing. This is being done even though there has been no new technical development to universally facilitate call tracing. It is hoped by American Telephone and Telegraph Company that publicizing successful call tracings, particularly those resulting in prosecution of offenders involved, will deter others from making annoyance calls.

The newspaper article describing a call tracing device no larger than the end of a pencil has all appearances of being a news release in line with the new call tracing policy. The device mentioned is one of several small electrical components which may be placed on a subscriber's line to change the nature of the current flowing in the line and, thereby, facilitate identification of the line for tracing the call. The devices have been used in the past in some Bureau cases involving call tracing. This technique is applicable only to certain types of telephone switching equipment and does not represent a new or universally applicable device to facilitate call tracing.

REC-4 80-789-140

CONTINUED - OVER

18 JUN 16 1966

80-789

RAM:bwd

ENCLOSURE
JUN 17 1966

62-31567
UNRECORDED COPY FILED IN

Memorandum to Mr. Conrad
RE: TELEPHONE CALL TRACING
Bufile 80-789

As recently as May 9, 1966, Laboratory representatives were advised by contacts in American Telephone and Telegraph Company that no new devices have been employed by Bell System companies in call tracing, but that their success has been the result of use of existing devices coupled with extensive investigations to develop suspects.

Two news releases, after a hearing by the Communications Subcommittee of the Senate Commerce Commission concerning abusive and obscene telephone calls, contained statements that American Telephone and Telegraph Company had spent millions to develop methods and equipment which could trace calls to the source. Concerning these, the Director inquired, "What are they?" and "What are the facilities for checking such calls?"

The methods of tracing calls fall into two general categories, manual and semiautomatic.

Manual tracing, which is most frequently required, necessitates physical tracing of the telephone circuitry backward from the called party to the telephone of the calling party by telephone company employees. They may use a variety of devices to lock up or hold various switching circuits during the trace. In some instances, equipment is supplied to the subscriber which enables him to push a button and, thereby, lock the circuits and signal the telephone company that a trace of a call is desired. There are many devices for use in this manner, each particularly adaptable for the particular switching equipment in use, but not universally adaptable to all types of equipment.

Semiautomatic tracing is feasible only on the latest type equipment equipped for automatic machine accounting. This equipment records the called number as well as the calling number, which information is immediately available and can be verified before the calling party hangs up. One type of equipment can be altered to give a false trouble report and, thereby, identify the calling number which can then be verified as above.

The problem of both manual and semiautomatic telephone call tracing is compounded many fold when the calling party and called party telephones are not assigned to the same exchange as the call tracing devices are effective only in the exchange in which installed. Telephone company officials have advised that equipment to effect a call trace through any number of exchanges is technically feasible but that all approaches to date have proven to be economically prohibitive.

Memorandum to Mr. Conrad
RE: TELEPHONE CALL TRACING
Bufile 80-789

In view of the new American Telephone and Telegraph Company policy on call tracing and the committee hearings now going on, it can be anticipated that the number of news releases relating to telephone call tracing will increase.

We will, as in the past, closely follow all aspects of call tracing and keep you advised of new techniques or equipment devised to facilitate call tracing.

ACTION:

None. For information.

MP *JR* *V* *GRC*
not very clear
5/13 *←*

Moisen ✓
DeLoach ✓
Mohr ✓
Wick ✓
Casper ✓
Callahan ✓
Conrad ✓
Felt ✓
Gale ✓
Rosen ✓
Sullivan ✓
Tavel ✓
Trotter ✓
Tele. Room ✓
Holmes ✓
Gandy ✓

'Detective' Now Nails Dirt Callers

ATLANTA, May 11 (UPD) — A little device no bigger than the end of a pencil is effectively playing detective in catching elusive obscene phone callers.

A Bell Telephone spokesman said the new equipment has been in use here for only a short time but that already 48 cases have been investigated, including a 15-year old boy who was telephoning threats to bomb schoolhouses. From the cases, 15 arrests have been made.

The phone company emphasized that no wire tap is involved in use of the new gadget.

What about this?
\$

62-31567

The Washington Post and Times Herald
The Washington Daily News
The Evening Star
New York Herald Tribune
New York Journal-American
New York Daily News
New York Post
The New York Times
The Baltimore Sun
The Worker
The New Leader
The Wall Street Journal
The National Observer
People's World
Date

24

EX 108

ENCLOSURE

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80-789-140

18 JUN 16 1966

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XEROX
JUN 16 1966

5/12/66
RAM/land

Tolson ☒
 DeLoach ☒
 Mohr ☒
 Casper ☒
 Callahan ☒
 Conrad ☒
 Felt ☒
 Gale ☒
 Rosen ☒
 Sullivan ☒
 Tavel ☒
 Trotter ☒
 Tele. Room ☒
 Holmes ☒
 Gandy ☒

UPI-87

(SADISTIC PHONERS)

WASHINGTON--SEN. JOHN O. PASTORE, D-R.I. TODAY DEMANDED FEDERAL PENALTIES AGAINST THE "SADISTIC AND PERVERTED" PHONE CALLERS WHO PREY ON THE RELATIVES OF FIGHTING MEN IN VIET NAM.

"THERE IS NO PENALTY TOO STRONG TO IMPOSE ON A WARPED INDIVIDUAL WHO TAUNTS A WIDOW OR PARENT ABOUT THE DEATH OR HEALTH OF THEIR LOVED ONES IN VIET NAM.

"I DON'T KNOW OF ANYTHING MORE HORRIBLE," PASTORE SAID. "I DON'T KNOW OF ANYTHING MORE VICIOUS."

PASTORE MADE HIS REMARKS AS THE SENATE COMMUNICATIONS SUBCOMMITTEE OF WHICH HE IS CHAIRMAN--RESUMED HEARINGS ON PORPOSED LEGISLATION PROVIDING PENALTIES FOR ALL HARASSING THREATENING AND ANNOYING TELEPHONE CALLS, INCLUDING THOSE RELATED TO VIET NAM.

THE LEGISLATION WAS STRONGLY ENDORSED BY THE DEFENSE DEPARTMENT, SEN. EDWARD V. LONG, D-MO., THE FEDERAL COMMUNICATIONS COMMISSION, AND REPRESENTATIVES OF THE TELEPHONE COMPANIES.

PASTORE WAS BITTERLY CRITICAL OF A LETTER FROM THE JUSTICE DEPARTMENT WHICH ENDORSED THE OBJECTIVES OF THE LEGISLATION BUT REFUSED TO RECOMMEND ENACTMENT OF THE BILL.

PASTORE SAID HE WOULD SUMMON THE JUSTICE DEPARTMENT TO TESTIFY. "I AM NOT TOO MUCH SATISFIED WITH THE LETTER," HE SAID.

BRIG. GEN. WILLIAM W. BERG, DEPUTY ASSISTANT SECRETARY OF DEFENSE, SAID THE PENTAGON HAS RECEIVED 87 SPECIFIC COMPLAINTS OF HARASSMENT FROM RELATIVES OF SERVICEMEN IN VIET NAM.

"THE DEPARTMENT OF DEFENSE IS CONCERNED ABOUT THE ADVERSE EFFECT ON THE MORALE AND WELFARE OF OUR SERVICEMEN AND THEIR FAMILIES OF THESE OFFENSIVE, HARASSING AND EVEN SUBVERSIVE ACTS-- PARTICULARLY AS THEY PERTAIN TO OUR OPERATIONS IN VIET NAM AND ELSEWHERE."

BERG SAID MOST OF THE HARASSMENT HAS BEEN BY PHONE BUT IT HAS INCLUDED LETTERS, POSTCARDS, TELEGRAMS, AND EVEN PERSONAL VISITS.

HUBERT KERTZ, VICE-PRESIDENT OF AT&T, SAID THE BELL SYSTEM HAS RECEIVED FEW COMPLAINTS ABOUT VIET NAM CALLS.

HE SAID RECENTLY AT&T AND THE DEFENSE DEPARTMENT HAVE CONFERRED ON TEAMING UP TO TRACK DOWN THE CALLERS. 18 JUN 16 1966

KERTZ SAID AT&T HAS DEVELOPED SEVERAL METHODS TO TRACE CALLS. IN RESPONSE TO QUESTIONS, KERTZ SAID AT&T HAS SPENT MILLIONS DEVELOPING THESE METHODS. *What are they?*

KERTZ SAID THAT ABOUT ONE-THIRD OF THE ABUSIVE CALLS ARE MADE BY THE MENTALLY ILL; ANOTHER THIRD ARE JUVENILE PRANKS; AND THE REST STEM FROM DIVORCES, LABOR STRIFE, BUSINESS SQUABBLES, AND EXTREMIST ORGANIZATIONS.

5/11--TD121PED

WASHINGTON CAPITAL NEWS SERVICE

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7-*[Signature]*

District Leads Nation In Obscene Phone Calls

By Bryce Nelson

Washington Post Staff Writer

The District of Columbia led the Nation in the rate of abusive and obscene telephone calls in March, according to American Telephone and Telegraph Co. statistics released yesterday by the Communications subcommittee of the Senate Commerce Committee.

The Nation-wide statistics were released after a hearing on the bill of Subcommittee Chairman John O. Pastore (D-R.I.), that would make abusive interstate telephone calls a Federal offense. During the hearing, Pastore said he would consider including the District in the provisions of the bill.

At present, making an obscene telephone call in the District is subject only to a \$10 fine. The Pastore bill would make an obscene call subject to a fine up to \$1000 and imprisonment up to a year for each offense.

The Department of Defense and the telephone companies testified in favor of the Pastore bill. Sen. Edward V. Long (D-Mo.) testified in favor of his own bill, which would make "dial-a-victim" calls made within states, as well as interstate call, subject to Federal prosecution.

Pastore released a letter from from Deputy Attorney General Ramsey Clark stating that the Justice Department could support neither the Pastore nor the Long bill, partly because investigation of the approximately 375,000 abusive telephone calls reported annually in the United States would impose a "staggering burden upon the FBI."

Pastore said he would call the Justice Department to testify before his subcommittee and added, "The Justice Department has not gone into the matter in depth."

Defense Is Concerned

Air Force Gen. William W. Berg, testified that the Defense Department was concerned about the adverse effect of harassing telephone calls on families of servicemen.

Berg said the Department had discovered 87 harassing contacts to date, mostly telephone calls. He told the story

of the widow of a serviceman killed in Vietnam, who answered the telephone to hear that her husband had "got what was coming to him."

Hubert Kertz, the operating vice president of the American Telephone and Telegraph Co., said his company had received "very few complaints about calls to families of servicemen." Kertz said that AT&T had asked the Defense Department to provide the

facts about such calls, but that the Department had not supplied such information.

Kertz said that 46,000 insulting calls were reported in the United States in March, and that 796 of them were in the District.

Campaign Planned

Kertz said that his company was determined to eliminate such abuse and had spent "millions" to develop equipment that could trace calls to the source. Kertz said that AT&T planned to launch a Nation-wide advertising campaign to tell subscribers how to deal with such calls.

Kertz said that AT&T had analyzed abusive calls, finding that about one-third came from the mentally ill, one-third from juvenile pranksters and the other third stemmed from divorces, business arguments, labor strife and extremist organizations. He said that most of the insulting callers were men.

Tolson ✓
DeLoach ✓
Mohr ✓
Wick ✓
Casper ✓
Callahan ✓
Conrad ✓
Felt ✓
Gale ✓
Rosen ✓
Sullivan ✓
Tavel ✓
Trotter ✓
Tele. Room ✓
Holmes ✓
Gandy ✓

What are the facilities for checking such calls?

The Washington Post and Times Herald A-6
The Washington Daily News
The Evening Star
New York Herald Tribune
New York Journal-American
New York Daily News
New York Post
The New York Times
The Baltimore Sun
The Worker
The New Leader
The Wall Street Journal
The National Observer
People's World
Date

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ENCLOSURE

18 JUN 16 1966

MAY 12 1966

7-8

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XEROX
JUN 16 1966

EX-103

REC-4
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COMM
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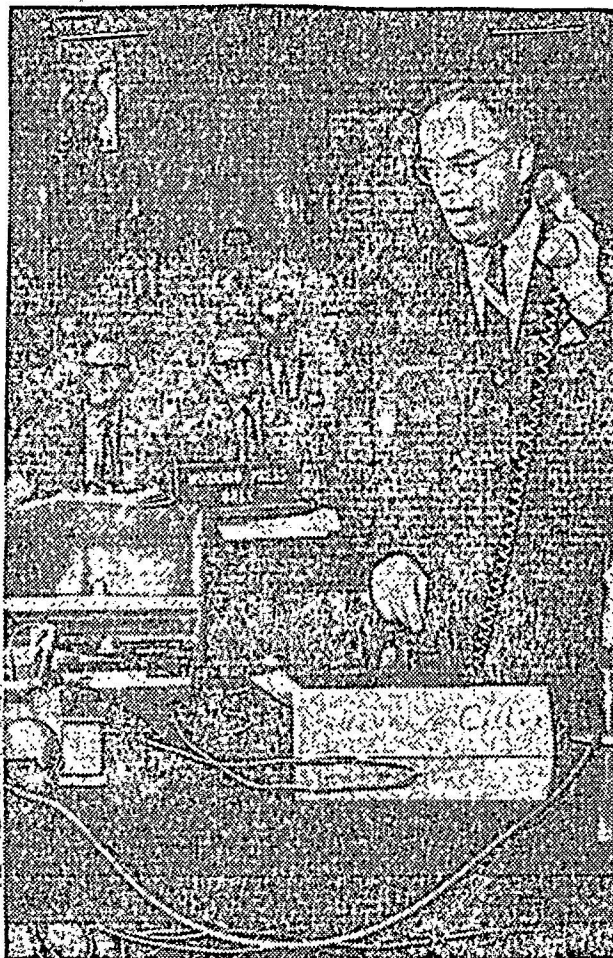


Photo by Wally Drive

SLEUTHING—Equipment that is used to trace annoying telephone callers is demonstrated by Hubert Kertz, a vice president of the American Telephone and Telegraph Co. Kertz testified in favor of a bill that would make it a Federal offense to place obscene or harassing telephone calls on inter-state lines.

~~14-00000~~
JUN 16 1966

Special Device Traces Nuisance Phone Callers

By Leonard Downie Jr.
Washington Post Staff Writer

Washington residents are the targets of more abusive phone calls than any other citizens in the Nation. Each month, the telephone company here receives crank call complaints from 800 of its 300,000 subscribers.

Tracking down and stopping the callers is a tedious, difficult process, company officials say, but recently, with the aid of a special device, they have been able to identify and help police arrest.

• A Washington man who, posing as a doctor, made thousands of calls to area women and asked them detailed questions about their sex lives.

• A suburban man who made up to 200 calls a day to a Washington woman he said he loved although she refused to talk to him.

• Another man who had been harassing neighbors on his block whom he did not like.

• A 19-year-old girl who had made obscene calls to at least 40 persons and a 14-year-old boy who had telephoned at least 20.

The best way for crank call victims to try to discourage the callers right from the start, a Chesapeake and Potomac Telephone Co. spokesman said yesterday, is to fight back with silence.

"If your telephone rings and the caller won't say anything, won't identify himself properly or uses obscene language," he said, "simply hang up."

The caller usually is seeking an audience, attention, or an angry or frightened reaction, the official explained, and if he gets one he is likely to keep calling back.

If the abusive calls do continue, the victim should then call the telephone company or police. Company investigators can then trace the calls with a special device attached to the victim's phone line.

When he receives the next crank call, he can flip a switch on his phone which sets off an alarm in the company's central office. An employee there, aided by an electronic tone also activated by the device,

can trace the call without the caller's knowledge.

If the investigators track down the suspected caller, they can then use a central office machine or a device attached to his phone line to record the date, time and recipient of calls from his number.

Most of the crank callers are men. Often they are perverts who make obscene remarks or suggestions to women, especially those who live alone.

Another common crank caller, the telephone official said, is "the breather" — often a teenager — who dials a number at random and, when the other party answers, does not say anything, although he often breathes heavily into the phone.

Other crank calls come from teenage pranksters, relatives, or business associates who have some type of grudge against the person they call.

Washington law provides only for a \$10 fine for making abusive calls, although statutes in Maryland, Virginia and many other states set maximum penalties of \$500 to \$1000 fines and up to a year in jail.

A bill passed by the House would raise the District's maximum to \$500 fine and one year in jail. Two bills recently introduced in the Senate would impose similar penalties nationwide.

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Holmes _____
Gandy _____

The Washington Post and Times Herald

The Washington Daily News _____
The Evening Star _____
New York Herald Tribune _____
New York Journal-American _____
New York Daily News _____
New York Post _____
The New York Times _____
The Baltimore Sun _____
The Worker _____
The New Leader _____
The Wall Street Journal _____
The National Observer _____
People's World _____
Date _____

XEROX
JUN 16 1966

80-789-140

ENCLOSURE

MAY 13 1966

UNITED STATES GOVERNMENT

Memorandum

TO : DIRECTOR, FBI (80-789)
ATTN: [REDACTED]
FROM : SAC, TAMPA (66-146)
SUBJECT: AMERICAN TELEPHONE AND
TELEGRAPH TROUBLE RECORDER
Information concerning

DATE: 5/24/66

b6
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For the Information of the Laboratory, during a recent CGR investigation involving obscene telephone calls originating from Cape Kennedy, the Tampa Division utilized a Trouble Recorder developed by the Bell laboratories to assist them in pinpointing the location of the telephone being used by the subject. In view of the fact that the Tampa Division is not aware of whether or not the Laboratory has any information concerning this device, the following information is set forth:

In an effort to enable telephone companies to better check on their telephone equipment, the Bell laboratories have developed an electronic device which has been termed a Trouble Recorder. This device can only be utilized with cross-bar equipment and it is connected to the main switching room equipment at the central switching station. If trouble should develop on a subscriber's telephone, technicians can place a grounding device on that number in the switch room. Thereafter, whenever that particular number is dialed, the Trouble Recorder records on a computer card, the time of the call, the number making the call, the number that was called and the date. In addition, the Trouble Recorder also records any defect that it notes in the subscriber's equipment. This above information is ejected from the Trouble Recorder in the form of a punch card which is ejected instantly when the subscriber's telephone rings. Technicians have advised that the Trouble Recorder senses that the subscriber's telephone number has been dialed and records the caller's number, then when electrical impulses reach the subscriber's telephone this triggers the release of the computer card with the additional information punched out.

The Trouble Recorder, when attached to a

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2 - Bureau
1 - Tampa

JUN 7 1966



5010-108

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

particular telephone number, will print out the caller's number only within the exchange being monitored by the Trouble Recorder. On calls to a particular exchange from without the exchange, the Trouble Recorder will only print out the trunk line being used.

The utilization of the above mentioned Trouble Recorder by the FBI could provide excellent investigative information in extortion, kidnaping, and other cases in which the telephone is used as an instrument of the crime. Technicians have advised that the Trouble Recorder is infallible in reporting the above mentioned information.

In the CGR case noted above, the instrument was used to determine what trunk line the subject was using from Cape Kennedy to Titusville, Fla. By utilizing a conference telephone call from Cape Kennedy to Southern Bell Telephone Company, Titusville, Fla., and the telephone exchange at Cape Kennedy, Bureau Agents were able to furnish Cape technicians with the trunk line number immediately when the victim's telephone rang. Utilizing this information, the technicians were able to trace the calls to a Cape Kennedy telephone number within two minutes. In this particular case Bureau Agents were able to apprehend the subject in the act of making an obscene call.

The above information is being furnished to the Laboratory for analysis as to its possible utilization by the FBI in appropriate cases.

It should be noted the above equipment was utilized in case captioned [redacted] aka, CGR - OBSCENE TELEPHONE CALLS, and is being submitted in response to Bureau routing slip dated 5/18/66. Appropriate personnel at Southern Bell Telephone Co. have no technical manuals or material on this equipment and the Tampa Office is not aware where such technical publications can be obtained.

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UNITED STATES GOVERNMENT

Memorandum

TO : Mr. W. C. Sullivan

DATE: 5/27/66

FROM :

[Redacted]

SUBJECT: TELEPHONE CALL TRACING
CONFERENCES OF AMERICAN TELEPHONE
TELEGRAPH (ATT) REPRESENTATIVES WITH
FEDERAL AVIATION AGENCY (FAA) OFFICIALS

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DeLoach _____
Mohr _____
Wick _____
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Trotter _____
Tele. Room _____
Holmes _____
Gandy _____

ATT representatives have contacted FAA officials regarding possible use of latest telephone call tracing equipment in checking hoax telephone calls. The FAA is interested in determining the practical use and merits of this equipment and a demonstration and discussion conference has been scheduled with ATT representatives.

[Redacted] (former Special Agent), Director, Office of Compliance and Security, FAA, feels this conference may be of interest to the Bureau and has extended an invitation for Bureau representatives to attend. The conference will be held at 1:30 p.m., June 1, 1966, FAA Headquarters, Room 1033-S, 800 Independence Avenue, S.W., Washington, D. C.

This matter has been discussed with the Electronics Section, Laboratory Division, and in view of the Bureau's interest in this investigative technique, it is recommended representatives of the Bureau Laboratory and Liaison Section attend this conference.

ACTION:

NOT RECORDED

184 JUN 14 1966

If you approve, representatives of the Bureau's Laboratory Division and Liaison Section will attend this conference.

BFR:rab
(7)

- 1 - Mr. DeLoach
- 1 - Mr. Sullivan
- 1 - Mr. Conrad
- 1 - Electronics Section
- 1 - Liaison
- 1 - [Redacted]

BUFILE 80-789

53

JUN 23 1966

Memorandum
BFR/KAM:jah
6-9-66

ORIGINAL FILED IN 62-31567-1507

UNITED STATES GOVERNMENT

Memorandum

b6
b7C

Tolson _____
DeLoach _____
Mohr _____
Wick _____
Casper _____
Callahan _____
Conrad _____
Felt _____
Gale _____
Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____
Holmes _____
Gandy _____

TO : Mr. W. C. Sullivan

DATE: 6/14/66

FROM : [redacted] *mm*

SUBJECT: TELEPHONE CALL TRACING: CONFERENCE
OF AMERICAN TELEPHONE AND TELEGRAPH (ATT)
REPRESENTATIVES WITH FEDERAL AVIATION
AGENCY (FAA) OFFICIALS 6/1/66

Federal Aviation Agency
As approved in my memorandum, 5/27/66, Liaison
Supervisor [redacted] and Laboratory Supervisors [redacted]
and [redacted] attended captioned conference 6/1/66. Also
present were [redacted] Director, Office of Compliance
and Security, FAA, accompanied by [redacted]
and [redacted] of FAA and [redacted] General
Security and Audit Administrator, ATT, accompanied by [redacted]
[redacted] ATT equipment engineers.

The ATT representatives presented the current
capabilities of Bell System companies to trace calls in the
various types of switching equipment in use by Bell Companies.
This presentation revealed no new techniques but reviewed the
same material contained in the memorandum [redacted] to Conrad,
5/12/66. ATT is relying heavily on publicizing successful
traces as a deterrent to the growing number of telephone
subscriber complaints regarding annoyance calls estimated
by phone company officials to be in excess of 1,500,000
annually. ATT will initiate a nationwide advertising
campaign in coming months aimed at showing a willingness
and capability of Bell System companies to trace annoyance
calls. FAA also feels that effective call tracing techniques
and publicity will serve as a deterrent to the numerous
telephonic annoyance and bomb hoax threats received by air
line companies and airport terminals.

BFR/RAM: kmg *kmg*
(9)

REC-4

- 80-769-80-789*
- 1 - Mr. DeLoach
 - 1 - Mr. Conrad
 - 1 - Mr. Sullivan
 - 1 - Electronics Section

- 1 - [redacted]
- 1 - [redacted]
- 1 - Liaison
- 1 - [redacted]

80-789-140X1
80-769-370
JUN 29 1966

CONTINUED - OVER

Tracing Telephone Calls

54 JUL 5 1966

Memorandum [] to Sullivan
RE: TELEPHONE CALL TRACING: CONFERENCE
OF AMERICAN TELEPHONE AND TELEGRAPH (ATT)
REPRESENTATIVES WITH FEDERAL AVIAITION
AGENCY (FAA) OFFICIALS 6/1/66

In conclusion the conference produced the following results:

(1) ATT has no perfected call tracing systems adaptable to the many different switching systems in use in various Bell System companies.

(2) There is no way at this time to automatically trace the single threatening call when it is not known in advance what telephone number at what airport will receive the call.

(3) In case of repeated annoyance calls, while there is no sure-fire technique developed, ATT desires to make a maximum effort to trace these calls with all the techniques available and feel they can produce results if the calls continue over a sufficient period.

(4) In line with three above, FAA will make a survey of air terminals within the next 90 days to locate areas receiving regular annoyance-type calls and will furnish this information to ATT who will attempt to trace the calls.

ACTION:

For information. [] will advise Bureau results of FAA survey and any request of ATT for call tracing assistance. Technical details discussed at this meeting being recorded separately by the Laboratory Division.

WEC/79 *BB* *J* *15* *V.* *300*



In Reply, Please Refer to
File No.

PERSONAL
NO NUMBER SAC LETTER 66-A
UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION

WASHINGTON, D.C. 20535

July 22, 1966

RE: TELEPHONE CALL TRACING OF

fw
The Bell System has undertaken a comprehensive program to combat use of the telephone for annoyance calls of all types. As part of this program, American Telephone and Telegraph Company has directed the Operating Companies of the Bell System to abandon the past generally negative attitude regarding call tracing and to implement a positive aggressive policy directed toward identification of calling lines from which annoyance calls are made. Particular emphasis has been placed on the need to successfully trace those telephone calls which are abusive, harassing, obscene or threatening to life or property.

In order that you will be aware of the scope of the Bell System annoyance call program and alert to publicity which may result from it, the major facets of the program are being set forth for your information.

Specifically, the program calls for: (1) Training of telephone company personnel to handle annoyance call complaints; (2) establishment of administrative procedures for handling operational, legal and technical problems which may arise in processing of any annoyance call complaint; (3) use of trained technicians and all available technical aids in tracing annoyance calls to their source; (4) prosecution of offenders in jurisdictions where criminal statutes are violated; and (5) publicizing the program by newspaper articles and by a national advertising campaign to begin in the immediate future.

Officials of American Telephone and Telegraph Company have advised that they have no new device, equipment or technique to automatically insure the successful identification of a calling line in the different types of switching equipment used or to automatically effect a call trace between different exchanges in metropolitan areas. Call tracing must still be accomplished by the application of those call tracing aids particularly suited to a local telephone system and to the equipment used in it.

American Telephone and Telegraph Company has taken steps to insure that each local telephone unit of the Bell System does have available the best suited aids for its call tracing applications. It has evaluated the many devices designed to aid in call tracing and has supplied the Operating Companies

F237
70 JUL 28 1966

80-789-
NOT RECORDED
133 JUL 25 1966

ORIGINAL FILED IN 66-04-3434

with descriptions, specifications, limitations, installation instructions and sources of supply for the devices recommended for Bell System use. This has enabled each Operating Company to select those devices most applicable for use with its equipment and to have available for use those call tracing aids which most increase the probability of successful identification of calling lines.

With the application of the best currently available call tracing devices and techniques, call tracing still remains a technically difficult and uncertain operation. However, the new impetus given to call tracing under the Bell System annoyance call program, the use of best available technical aids to call tracing and training of telephone company technicians in call tracing procedures should result in an increased call tracing capability in Operating Companies of the Bell System. You should be alert to any change in call tracing capability which may result in local Bell System Operating Companies in your area and should be guided accordingly in investigative situations which might warrant attempts to trace the source of telephone calls.

Very truly yours,

John Edgar Hoover

Director

7/22/66

NO NUMBER SAC LETTER 66-A

- 2 -

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Conrad *[Signature]*

FROM : *[Redacted]*

SUBJECT: TRACING TELEPHONE CALLS

DATE: June 15, 1966

b6
b7C

Tolson	_____
DeLoach	_____
Mohr	_____
Wick	_____
Casper	_____
Callahan	_____
Conrad	_____
Felt	_____
Gale	_____
Rosen	_____
Sullivan	_____
Tavel	_____
Trotter	_____
Tele. Room	_____
Holmes	_____

Houston CRIMDEL letter dated 6/10/66 captioned "Tracing Obscene Telephone Calls" reported that the Southwestern Bell Telephone Company is utilizing a device which enables telephone calls to be traced in large metropolitan telephone systems. The device was reported not to be limited to use in only one telephone exchange but capable of tracing telephone calls through different exchanges.

It has been ascertained by contact with Houston that the call tracing devices used by Southwestern Bell Telephone Company are of the same type provided by the American Telephone and Telegraph Company throughout the Bell System for this purpose.

The devices reported by Houston represent nothing new in call tracing. As reported in my memorandum to you of May 12, 1966, the Bell System is currently publicizing their call tracing capability in an effort to reduce the number of annoyance call complaints through this type publicity. The material submitted by Houston has the appearances of such a publicity release.

ACTION:

For information.

1 - 63-4296-19

RAM:bwd (10)

- 1 - Mr. Mohr
- 1 - Mr. Wick
- 1 - Mr. DeLoach
- 1 - Mr. Rosen
- 1 - Mr. Conrad

[Redacted]

1 - *[Redacted]* 1 - *[Redacted]*

80-789 JUL 62 1966

[Signature]
EX-110
JUL 15 3 22 PM '66
REC-58
80-789-141

JUL 19 1966

UNRECORDED COPY FILED IN 63-4296-19

(Mount Clipping in Space Below)

Mr. Tolson	_____
Mr. DeLoach	_____
Mr. Mohr	_____
Mr. Wick	_____
Mr. Casper	_____
Mr. Callahan	_____
Mr. C.	_____
Mr. Felt	_____
Mr. Gale	_____
Mr. Rosen	_____
Mr. Sullivan	_____
Mr. Tavel	_____
Mr. Trotter	_____
Tele. Room	_____
Miss Holmes	_____
Miss Gandy	_____

The REAL Detroit:

Tracing Obscene Phone Calls

By AL STARK

Every day, eight young women who know how to ask questions — and how to keep secrets — meet in a sixth-floor office in the telephone building at John R. and Bethune, unlock their confidential files, and turn detective.

They are Michigan Bell Telephone Co.'s new Anonymous Call Bureau, and they spend their day tracking down people who make obscene, harassing and threatening telephone calls.

The Anonymous Call Bureau is something new — and, to at least one Bell official — long overdue.



AL STARK

It is under the direction of Richard Bannasch, a 37-year-old veteran of service with Michigan Bell whose wife was a Bell engineer and whose mother is a Bell operator.

Bannasch, who thinks he has the most interesting job in the whole phone company, explained that all complaints about anonymous telephone calls, except those for which there is a ready and likely explanation, are referred to his office, where each is taken up by one of the young ladies.

How Complaints Are Handled

The young lady calls the customer who complained and, in Bannasch's word, a "cuddling" process starts.

"In 90 percent of the cases," Bannasch said, "the customer knows who is making the calls or has a pretty good idea who it is. Sometimes there is a divorce problem or a problem with neighbors or a problem with one of the children in the family. In the case of obscene calls, the calls are usually made by someone in the same area."

"This kind of caller has to be able to visualize the reactions of the woman he calls, so in many cases he's seen her before. Sometimes it's someone just down the block. They're always local calls."

THE
DETROIT, MICHIGAN

Date: 7-19-66
Edition: 4 STAR FINAL
Author: AL STARK
Editor: MARTIN S. HAYDEN
Title:

Character:
or
Classification:
Submitting Office: DETROIT

☐ Being Investigated

NOT RECORDED

184 AUG 4 1966

70 AUG 8 1966

100

The girl who calls the customer has to get every bit of information she possibly can from the customer. We call it cuddling the customer. All our interviewers are women because most of our complaints come from women.

Each of our girls stays with each case she starts, so that the customer always talks to the same one. And the customer knows everything will be kept in confidence.

We had a man who complained that he was getting 30 harassing calls a day, but he said he couldn't think of anyone who would do this to him. But the girl on the case kept after him and eventually he said he could think of seven people who might do it.

She took the names, checked to see if any of those people were making 30 calls a day from their own phones, and found the one who was making the calls.

Machine Can Trace Call

Bannasch said about 60 of any 100 complaints are washed out with one interview between his staff and the customer, either because the customer doesn't wish to prosecute or because it becomes obvious the calls are not likely to be repeated.

In the remaining 40 cases, the customer is asked to keep a log for a week of any more anonymous calls — what time the calls are made, who is home when they are made.

By the end of a week, Bannasch said, perhaps 30 of these cases can be solved. That leaves 10 more still open, and it is these — usually cases of repeated harassment by unknown parties — that the bureau bears down on.

It is in these cases that Bannasch may call for a line trace, either by manual means or by a remarkable device which can "lock in" on a telephone line and allow the phone company to tell what phone the obscene or threatening call was made from, even if the person who made the call has hung up.

This device is called a "trap."

It is important because, in areas where it can be used, the telephone company does not have to rely on the manual trace. If either party hangs up, you can't make a manual trace. The call is lost.

The only way an obscene call can be traced manually is when the woman getting the call keeps the caller on the line long enough to let a switchman at a central office track it down. If she hangs up a moment too soon it's the same as if she had hung up immediately. The call is lost.

But with a trap, the trace is automatic.

The woman can lay her phone down and walk away, and the caller may hang up. But, Bannasch said, the line between their phones remains open.

If the person who made the obscene call and hung up picks the phone up again to make another call, he'll find he can't get a line.

One type of trap, Bannasch said, will punch out a data card everytime a call is made to the number of a customer who has complained. The card shows the number the call was made from and the time it was made. Another type of trap will show all the numbers called from a certain telephone.

Traps Won't Work for Some

In each case there is evidence that can be turned over to the police, if the customer wants to prosecute, or evidence with which to confront the party whose telephone is being used for nuisance calls.

The only problem with the traps is that, according to Bannasch, they can be used on only 30 percent of the phones in the Detroit metropolitan area.

Bannasch said that the traps will work on the newest telephone switching equipment. He says areas like Southfield, Roseville, Mt. Clemens, Port Huron, all with newer equipment, are prime trapping areas. Traps also work well in areas served by the oldest (and simplest) equipment.

But in between are large areas of the city where traps cannot be used.

In June, for instance, the two telephone areas with the highest number of complaints about obscene or harassing calls were the Webster and Vinewood areas. But traps can be used in only two of seven of those exchanges, Vinewood 3 and Webster 1. The rest must depend on the chancy manual traces.

Of the 42 line traces made in June, all but three were in areas where traps could be used.

How soon will the rest of the city have this added protection?

"Our engineering people are working on traps for the other equipment right now," Bannasch said.

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Conrad *JWC*

FROM : *W*

SUBJECT: TELEPHONE CALL TRACING

DATE: July 19, 1966

b6
b7C

Tolson	_____
DeLoach	_____
Mohr	_____
Wick	_____
Casper	_____
Callahan	_____
Conrad	_____
Felt	_____
Gale	_____
Rosen	_____
Sullivan	_____
Tavel	_____
Trotter	_____
Tele. Room	_____
Holmes	_____
Gandy	_____

Attached is an SAC Letter advising the field of the new emphasis placed on telephone call tracing by Bell System Operating Companies. The letter summarizes the current status of technical devices for telephone call tracing and sets forth briefly the broad aspects of the new Bell System program formulated to combat annoyance telephone calling of all types.

This information is being supplied to all offices in order that they will be aware of the nation-wide aspects of the new Bell System program, to alert them to the considerable publicity which will result from it, and to enable them to appraise locally any increased efficiency in telephone call tracing which may result in Operating Companies of the Bell System.

RECOMMENDATION:

That the attached SAC Letter be approved and distributed to the field. In view of the subject matter of the letter, it has been designated a No Number SAC Letter.

- 1 - Mr. Mohr
- 1 - Mr. DeLoach
- 1 - Mr. Casper
- 1 - Mr. Rosen
- 1 - Mr. Gale
- 1 - Mr. Tavel
- 1 -
- 1 - Mr. Conrad

80-789

Enclosure - *Detached from*

RAM:ev
(12)

87 AUG 12 1966

EX 110

EC 40

80-789-142

4 JUL 29 1966

SEVEN *ajr*

TRACING TELEPHONE CALLS

UNITED STATES GOVERNMENT

Memorandum

1-Mr. Mohr
1-Mr. DeLoach
1-Mr. Conrad

b6
b7C
Tolson _____
DeLoach _____
Mohr _____
Wick _____
Casper _____
Callahan _____
Conrad _____
Felt _____
Gale _____
Rosen _____
Sullivan _____
Tavel _____
Trotter _____
Tele. Room _____

TO : Mr. Conrad

FROM :

DATE: March 13, 1967

SUBJECT: TELEPHONE CALL TRACING

Long-range planning of the American Telephone and Telegraph Company (AT&T) calls for inclusion of call tracing circuits in central office switching equipment. Equipment currently in use does not contain such circuits, with result that tracing telephone calls to identify the calling party is a long, tedious, and uncertain process. AT&T has recognized the urgent need for adequate call tracing equipment for use during the interim period between present-day exchanges and the all-electronic exchanges of the future, and has taken steps to develop such equipment.

According to our AT&T sources, call tracing equipment generally adaptable to present-day switching equipment is now in the experimental stage of development. This equipment employs logic circuits such as used in computers and must be programed with the telephone number for which a call trace is desired. When so programed, it will record the telephone number of all telephones calling the programed number and will record the time each call begins. From this information the identity of a telephone from which annoyance, threatening, or obscene telephone calls are made can readily be established without need to physically trace path of the call through telephone company switching equipment.

Although this equipment will represent substantial improvement over currently available call tracing devices and techniques, it will not be without limitations. The equipment can be programed with only two telephone numbers at one time, which means that in a large metropolitan area, only two telephone call tracings can be conducted simultaneously. In addition, equipment must be installed in every telephone company central office to make this system effective. Cost of installing the equipment may amount to several million dollars, however AT&T sources have indicated that Bell System plans to install this new call tracing equipment on a nation-wide basis if equipment now under evaluation proves satisfactory.

ACTION: For information. We will continue to follow this and other call tracing developments and keep you advised.

61 MAR 22 1967

RAM:ed
(6) ed

EX-103

REC 4680-789-193

6-788

7-807

TRACING TELEPHONE CALLS

UNITED STATES GOVERNMENT

b6
b7c

Memorandum

TO : ACTING DIRECTOR, FBI
ATTENTION: SA [REDACTED] RADIO ENGINEERING SECTION

FROM : SAC, INDIANAPOLIS (66-223)

SUBJECT: KEY PULSE OSCILLATORS
OF BLUE BOX
INFORMATION CONCERNING

o Tracing of Telephone Calls

Re IP telcall to Bureau, 5/31/72, re captioned matter.

Enclosed for the Radio Engineering Section are xerox copies of the Schematic on a Key Pulse Oscillator. Also enclosed are xerox copies of twenty pages of brochures and notes confiscated from a subject in a local matter by the Indianapolis PD. The pages are notes on the construction and operation of the Blue Box.

For the Bureau's information, [REDACTED] was arrested by the Indianapolis PD on 5/25/72 at his residence in Indianapolis. At the time of arrest, his residence was searched pursuant to a search warrant and numerous Blue Boxes were found and confiscated. None of the Blue Boxes were completed, however, his entire apartment was full of electronic gear and the construction was apparently in an assembly line fashion. The originals of the enclosed notes were found in his apartment.

Efforts will be made by this office to interview [REDACTED] regarding the construction and sales of the Blue Box. It should be noted that [REDACTED] was the subject of Indianapolis case entitled, [REDACTED] INTERCEPTION OF COMMUNICATIONS, IP file 139-47, Bufile 139-3516. A closing report was submitted to the Bureau in this matter on 2/19/70.

- 1 cc to and details RE Sent Let 6/7/72
2 - Bureau (Enc. 22)
1 - Indianapolis

JEDe/dlc
(3)

80-289-144
NOT RECORDED

JUN 5 1972



5010-108

F-20

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

52 JUN 15 1972

ORIGINAL FILED IN 139-3516-5

FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D. C. 20535

DATE:

Re:

b6
b7C

TO: 1-22-76

DIAL NUMBER RECORDER

SAC, HOUSTON

ATTN:

✓ GBL 0958806

Invoice of Contents *AIRBILL 007 DCA 19145011*

3 EA. 51A's s/n's 245,199,244
3 EA. 51A's CARRING CASES s/n's 1,2,4,
1 EA. 51B s/n 343
4 EA. 78R's s/n's 124,131,122,130
4 EA. 78T's s/n's 18,1,24,27

☐ Crypt.-Trans.
☐ Document
☒ P & C
☒ Radio Engineering
☐ LFPS

Special Instructions:

Mail Room: Show shipment date and registry number.
Shipping Room: Show shipment date; bill of lading number;
initial invoice; return to Section checked in block; after
initialing in block, invoice to be placed in administrative file.

FBI File No.

80-789

56 JAN 6 1976

HOUSTON

DATA ~~INVOICE~~ AND EXPRESS*

96

SAC, El Paso

Director, FBI (80-789)

TECHNICAL EQUIPMENT

Telephone Equipment

March 19, 1975

b6
b7C

1 -		6132
1 -		7128
1 -		
1 -		

Raurcal 3/14/75

TRACING TELEPHONE CALLS

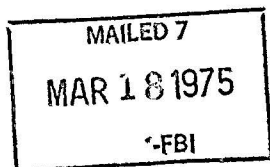
- ☐ Equipment listed below has been received. After repairs have been made it will be returned to your office.
- ☐ Equipment listed below has been repaired and is being returned to your office.
- ☒ Equipment listed below is being shipped to your office for ☐ permanent ☐ temporary assignment. Appropriate inventory changes should be made. Submit FD 222.
- ☐

2 each Linemans Hand Sets, Model 1013AW, no serial numbers.

LAC: LSW
(7)

80-789-

NOT RECORDED
6 MAR 19 1975



87 MAR 21 1975

MAIL ROOM ☒TELETYPE UNIT ☐

DOJ/FBI

1 -
1 -
1 -



b6
b7c

July 29, 1976

ST-102

REC-88
DE-12

80-787-145



Dear



I have received your letter of July 15th concerning a technique for tracing telephone calls and the interest which prompted you to write is appreciated.

Your suggestion is interesting and will be given consideration by the Laboratory's technical personnel involved in these matters.

Sincerely yours,
C. M. Kelley

Clarence M. Kelley
Director

MAILED 6

JUL 30 1976

FBI

Assoc. Dir. _____
Dep. AD Adm. _____
Dep. AD Inv. _____
Asst. Dir.:
Adm. Serv. _____
Ext. Affairs _____
Fin. & Pers. _____
Gen. Inv. _____
Ident. _____
Inspection _____
Intell. _____
Laboratory _____
Legal Coun. _____
Plan. & Eval. _____
Rec. Mgnt. _____
Spec. Inv. _____
Training _____

LAC:pam* (5)

Telephone Rm.

Director's Sec'y

1976

MAIL ROOM ☐

TELETYPE UNIT ☐

RECEIVED

mkh
FBI/DOJ

15 July 1976

Gentlemen:

For some time now I have entertained this idea for the "tracing" of anonymous telephone calls.

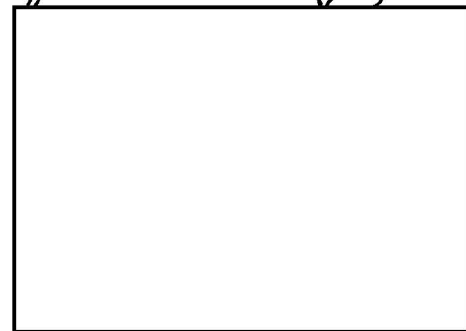
However, the concept seemed so obvious that I forebore to pursue the matter. Certainly one or more of your bright young men must have hit on it long ago.

The idea is set forth in the attachment. If it has any merit, feel free to make use of it. I want no remuneration so long as it is used strictly by the government.

TRACING Telephone CALLS

yours truly,

b6
b7C



REC-88

80-789-145

ST-102

22 AUG '8 1976

ENCLOSURE

CONFIDENTIAL

SUBJECT: Disclosure of Invention

It occurs to me that the source of an anonymous telephone call could be determined by analysis of reflected signals sent out from the receiving station and reflected from each discontinuity in the line (switches, relays, variations in conductor size, sharp turns, etc.)

A pulse (or pulses) of different frequencies and, possibly, different pulse shapes could be sent from the receiving station and be reflected back from the transmitter in a fraction of a second even over a long path (hundreds of miles). The frequencies might be above the audio range so that the process would not be audible to the caller.

A record of such reflections, it seems to me, should form a unique "signature" for any transmitter-receiver pair anywhere. An important element in the observation would be the delay times, which would be affected importantly by length of propagation paths.

Computer analysis and comparison of the "signature" with other relevant data should rapidly narrow down the search area, after which individual testing and comparison should pinpoint the transmitter.

b6
b7C

Name:

Date: 28 June 1976

Witness:

Date: June 28 76

80-789-145

ENCLOSURE

UNITED STATES GOVERNMENT

Memorandum

b6
b7C

TO : DIRECTOR, FBI
(ATTN: SCIENTIFIC AND TECHNICAL
SERVICES DIVISION; SA [redacted])
FROM : SAC, BUFFALO (66-2297)

DATE: 3/18/77

SUBJECT:

Buffalo, New York
Invention of Digital Printout
of Caller's Telephone Number

Tracing Telephone Calls

Re Buffalo letter to the Bureau, 2/16/77, and Bureau
telcall to Buffalo, 3/18/77.

Enclosed for the Bureau are one (1) copy each of a
paper describing the background of the digital printout system
and the patent information on U. S. Patent #3904830.

For the information of the Bureau, ^{SA} [redacted]
from [redacted] on 3/4/77 that in order to secure a digital
printout of an incoming or caller's telephone number, it would be
necessary first to install a chip in the caller's telephone.

[redacted] explained that in order to do this, Western Electric
would have to build this chip directly into telephones. In view of
the fact that this could very possibly be a direct invasion of
privacy and would be as a practical matter, impossible to install
in existing telephones, it is not felt that any further follow up
will be conducted in this matter.

[redacted] advised that should there be any pertinent
developments in this matter, he will contact this office.

REC-88

EX-131

80-789-146

8-3
24 JUL 25 1977

② - Bureau (Encs. 2)
2 - Buffalo
(1 - 66-1218)

TQM:cnw
(4)



349
35 SEP 9 1977

U.S. Savings Bonds Regularly on the Payroll Savings Plan

254

UNITED STATES PATENT NO . 3904830

DATED: SEPTEMBER 9, 1975 AND Continuation in part Patent #.399.7732 Dated Dec 8 1976

PATENT TITLE: "CALL TRACING AND IDENTIFICATION SYSTEM"

The "Call Tracing and Identification System" (Instant Trace) is an autonomous functioning system. It is entirely a terminal (telephone Instrument) function. This system is compatible with all telephone systems with a slight modification of existing equipment.

With present "IC" technology, it is possible to package the entire system in two, "chips." We refer to this product as "DDITS" (Digital Display Instant Trace System).

If desired, the system can be interfaced with a computer at the exchange and the entire exchange can be automated.

OPERATION:

The tracing of a call is done automatically. With the "DDITS" circuit "chip" in the telephone and with a small digital readout on the telephone instrument. (a ten digit LED readout 1/4 x 1 1/2 inches) the receiving phone will automatically readout the area code and number of the calling phone. The information occurs 30 ms from the first ringing pulse and cannot be obliterated by the calling party. The system allows for a completely instant trace feature with no operators required. It also provides emergency identification for police, fire or ambulance calls where the caller either fails or is unable to identify himself and/or location. Anonymous calls would be eliminated with this system in effect.

THE PRODUCT STATUS:

Developed through Proto-type: Circuit refined for chip production.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to identification systems and, more particularly, to a call tracing and identification system for a telephone network for rapidly tracing and identifying the calling party's telephone number directly to the called party.

Description of the Prior Art

With the numerous advantages and benefits of the modern telephone have come certain disadvantages, not the least of which has been the vulnerability of telephone subscribers to the persistent receipt of malicious, annoying and criminal telephone calls. Since the ringing signal of the telephone normally carries with it no indication as to the nature or identification of the calling party, a subscriber who has become the target of such harassment must either ignore all telephone calls or subject himself to continued annoyance. Since the calling party's anonymity remains intact throughout the duration of his criminality, it is often virtually impossible to prevent continued disturbance of the called party without changing the telephone number and withholding the listing of the new number in the telephone directory. Obviously, this has the disadvantage of requiring the innocent victim, namely the called party, to notify all friends, relatives and associates of the new telephone number and, more importantly, is no guarantee that a similar situation would not arise again in the future.

In view of the seriousness of the above-described situation, stringent laws have been passed to deter the malicious caller from perpetuating such conduct, and a number of complex call tracing systems have been developed in an effort to reveal the identity of the calling party. The prior art, as exemplified by U. S. Patents No. 2,045,146, No. 2,764,633, No. 2,879,338, No. 2,963,553, No. 3,336,445, No. 3,385,933, No. 3,431,364, No. 3,471,647, No. 3,516,062, No. 3,522,385, No. 3,674,941, No. 3,576,951, No. 3,686,440, No. 3,702,901, No. 3,727,003 and No. 3,787,626, is generally cognizant of identification systems for communication networks including call tracing equipment which is designed to be utilized at or in connection with local telephone exchange equipment to identify the telephone number of a party who has placed a malicious or annoyance call to a particular subscriber. The prior art identification systems generally have one or more deficiencies such as being quite complex, being unsuitable for telephone networks, being excessively expensive, requiring an excessive time interval in order to properly identify the calling party which allows the malicious caller to recognize such delay and hang up before the system has had a chance to complete the trace thereby avoiding identification, producing signals interfering with normal communication or warning the malicious caller, etc.

In the course of developmental efforts in the field of telephone call tracing, it has also been discovered

that a need exists for an economical yet effective system for rapidly identifying the telephone number of all calling parties whether a called subscriber answers his phone or not. In this way, not only will malicious or prank calls be traced, but calls missed while a subscriber is away from his telephone can also be identified simply and automatically.

While numerous attempts have been made to solve these and other related problems, the solutions heretofore proposed have only been partially satisfactory due to their complexity, high cost, slow speed of operation, required interconnection and disruption of local telephone exchange equipment, and overall ineffectiveness in combating the problem of the malicious or prank caller.

SUMMARY OF THE INVENTION

It is, therefore, an object of the present invention to rapidly identify a calling subscriber directly to the called party.

A further object of this invention is to identify and store the telephone number of a calling party independently of whether the called party responds to the call.

The present invention has another object in the transmission, receipt, storage and digital display of a telephone number between two parties in a telephone system.

A further object of the present invention is to generate and transmit an interrogation signal over the telephone lines in response to the receipt of a ringing signal by a called subscriber.

A still further object of this invention is the construction of a call tracing and identification circuit which may be readily incorporated with existing public telephone facilities.

5 The present invention is summarized in that a call tracing and identification system for a telephone network connected to a calling-party telephone line and a called-party telephone line, the system including an encoder means, associated with the calling-party
10 telephone line for applying an identification signal identifying the calling-party telephone line to the called-party telephone line, the encoder means including means responsive only to an interrogation signal having a first characteristic on the called-party telephone line for
15 initiating operation of the encoder means; and a called-party telephone device connected to the called-party telephone line and including (a) interrogation means for generating and applying an interrogation signal having the first characteristic to the called-party telephone
20 line, (b) means for receiving the identification signal from the called-party telephone line, and (c) means responsive to the receiving means for producing a visual identification of the calling-party telephone line.

25 The present invention is advantageous over prior art systems in that it is economical, effective, may be readily installed with existing equipment, provides accurate storage and identification of telephone calls independently of whether they are answered, and rapidly traces annoyance calls.

UNITED STATES GOVERNMENT

Memorandum

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TO : DIRECTOR, FBI
FROM : SAC, BUFFALO (66-1218)

DATE: 2/16

SUBJECT:

[REDACTED]
BUFFALO, NEW YORK;
INVENTION OF DIGITAL
PRINTOUT OF CALLER'S
TELEPHONE NUMBER

Assoc. Dir.	_____
Dep. AD Adm.	_____
Dep. AD Inv.	_____
Asst. Dir.:	_____
Adm. Serv.	_____
Ext. Affairs	_____
Fin. & Pers.	_____
Gen. Inv.	_____
Ident.	_____
Intell.	_____
Legal Coun.	_____
Plan. & Insp.	_____
Rec. Mg.	_____
S. & T. Serv.	_____
Spec. Inv.	_____
Training	_____
Telephone Rm.	_____
Director's Sec'y	_____

FBI/DOJ

Enclosed for the Bureau is a clipping from the "Buffalo Evening News," a daily Buffalo newspaper, of 2/5/77, entitled, "Clarence Inventor Creates Radical 'Instant-Trace' Phone."

Telephone Calls
This matter is being brought to the attention of the Bureau for their information. [REDACTED] was interviewed by SA [REDACTED] on 2/11 and 2/14/77, and advised that he holds the patent for his invention as described in the enclosed clipping.

[REDACTED] has a large prototype of his invention on a plywood board and demonstrated that it did work. He stated that he expects to have a presentable prototype built by the end of February, 1977. When this becomes available, he intends to schedule a demonstration of the device for all interested parties. [REDACTED] advised that he is aware of the implications of this device and would be more than happy to demonstrate it for all personnel of the FBI who are interested.

Buffalo indices were checked and reflect that the only reference to [REDACTED] is that he was the victim of an extortion ~~and~~ credit transaction scheme in a matter which was declined by the USA's Office, Buffalo, New York, in June, 1976.

② - Bureau (Enc. 1)
2 - Buffalo
TQMCD:kls
(4)

ENCLOSURE REC-88

EX-131 (2) DE-32

80-789-147

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56 SEP

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

BU 66-1218

No additional information is available at this time, however, the Buffalo Office will closely follow this matter.

(Mount Clipping in Space Below)

Clarence Inventor Creates Radical 'Instant-Trace' Phone

By PHILIP LANGDON

Remember all those movies in which the police try desperately to keep a kidnaper on the phone long enough to trace the call?

And all those TV shows in which a frightened woman wonders who it is that's making threatening phone calls?

A Clarence man says he has an invention that would make those scenes dated, obsolete.

"It's an 'instant-trace' telephone."

Francis A. (Frank) Kennedy of 4540 Gentwood Dr. is developing a prototype telephone that will give the person on the receiving end of a phone call the number of the caller, even before he has said "Hello."

IT WORKS like this: The caller dials. The phone at the other end of the line starts to ring. Within a fraction of a second, 10 numbers light up on a dial near the top of the receiving phone, a dial much like an electronic calculator's.

The numbers are the area code and local number of the person doing the dialing.

The possibilities are obvious. And intriguing.

How could anyone make a telephoned bomb threat or a nuisance call? His number would be known immediately.

Confusion in emergency calls to 911 or other police and fire dispatchers might be cleared up, since the telephone number would help pinpoint the caller's location. Tragedies might be avoided.

THE INDIVIDUAL who collapses from a heart attack, unable to complete his call for an ambulance, might be found.

There would be freedom to decide which call to answer.

"Any woman who lives alone would love it," Mr. Kennedy says, with an analogy. "It's nice to look out the door before answering it sometimes."

Consider the other possibilities: Bosses could always figure out where their employees were calling from. The same might be true for husbands and wives and anybody else.

For police states, it would be ideal, Mr. Kennedy says, and he thinks the shah of Iran might like it.

"We've got a problem here," Mr. Kennedy acknowledges, "invasion of privacy. I'm sure the Civil Liberties Union would fight it."

MR. KENNEDY says, however, that it would also be feasible to arrange for some numbers to register on telephone company records but not on phones.

Otherwise, the "unlisted number" would become a farce, because it would be revealed every time a call was made.

"Each phone," he says, "has an electronic fingerprint."

The device was invented and patented, Mr. Kennedy says, by Mechtronics Co. of Mansfield, Pa. Mr. Kennedy acquired the right to develop a working, saleable model and bring it into production.

He's not a certified engineer but rather a self-employed man, self-educated in electronics, who earlier worked for Microtectonics Inc. in Alden and once headed a business called Cardiac Electronics.

MR. Kennedy now has what's called a "hard-wired board" prototype which he says can, with some investment, be refined into micro-circuitry so small that it would be only a chip inside each phone.

"What I would like," he admits, "is a little bit of help

(Indicate page, name of newspaper, city and state.)

BUFFALO EVENING NEWS
Buffalo, New York

BUFFALO, NEW YORK
INVENTION OF DIGITAL
PRINTOUT OF CALLER'S
TELEPHONE NUMBER

Date: 2/5/77

Edition: City

Author:

Editor:

Title:

Character:

or

Classification: 66-1218

Submitting Office Buffalo

☐ Being Investigated

ENCLOSURE

80-789-147



YOUR NUMBER IS UP — Frank A. Kennedy holds a phone and points to a digital-readout slot on which the caller's phone number will appear as soon as the phone rings. At left is his prototype of the electronics unit that provides the capability.

with finishing up the prototype ing is the key.
 ... I'm running on a shoestring. If he's successful, the new product might be manufactured in the Buffalo area, adding to the number of job opportunities here. And that is a number even more important than the one at the other end of the line.

SAC, Albany
(Attn: Principal Legal Instructor)

12/6/77

Director, FBI

**AUTHORITY OF COURT TO ORDER
TELEPHONE COMPANY ASSISTANCE
IN TRACING CALLS**

TRACING TELEPHONE CALLS

On 10/7/77, the United States Court of Appeals for the Sixth Circuit affirmed orders of a district court requiring a telephone company to trace incoming calls on two telephones.

The case, Michigan Bell Telephone Company v. U.S., is significant because it recognizes the authority of a district court to order the affirmative assistance of a telephone company to install "card drops and other mechanical or electronic devices designed to trap and trace incoming telephone calls...(and) to perform manual tracing operations and provide the facilities and technical assistance necessary for the implementation of the court order, with all reasonable expenses to be reimbursed by the (G)overnment."

The Court of Appeals, relying on earlier "pen register" cases, U.S. v. Illinois Bell Telephone Co., 531 F. 2d 809 (7th Cir. 1976) and U.S. v. Southwestern Bell Telephone Co., 546 F. 2d 243 (8th Cir. 1976), cert. pending 20 Cr.L. 4205, held that the devices to trap and trace incoming calls do not fall within the provisions of Title III of the Omnibus Crime Control and Safe Streets Act of 1968 since neither device actually hears nor monitors conversations and thus does not accomplish an "aural acquisition." (Note: On 10/3/77, the United States Supreme Court heard oral arguments in U.S. v. New York Telephone Co., to determine whether a district court judge had the power to order the telephone company to assist FBI Agents in the installation of pen registers. The United States Court of

Appeals for the Second Circuit ruled he did not. See 538 F. 2d 956 (2nd Cir. 1976).)

REC-21 V-55

DE-68

80-789-748

ENCLOSURE

The Court in affirming the two orders concluded that they were proper under Rule 41 of the Federal Rules of Criminal Procedure which governs search warrants. The Court reasoned that since Rule 41 authorizes the issuance of search warrants for "property" that constitutes evidence of crime, "(c)ommon

2 - Each Field Office

(Attn: Principal Legal Instructor)

UJB:mse (143)

MAIL ROOM

TELETYPE UNIT

JAN 12 1978

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1 - [] (direct)
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U.S. GPO : 1975 O - 569-920

SAC, Albany

Re: Authority of Court to Order Telephone
Company Assistance in Tracing Calls

sense dictates, that, as technology makes possible the seizure of intangibles, the courts should not limit the scope of Rule 41, but rather we should interpret the Rule so as to effectuate its purpose."

The Court held that a district court can require the telephone company to actually perform the manual tracing operations under authority of the All Writs Act, Title 28, United States Code, Section 1651(a).

This decision can be found in 22 Criminal Law Reporter 2063 (10/19/77).

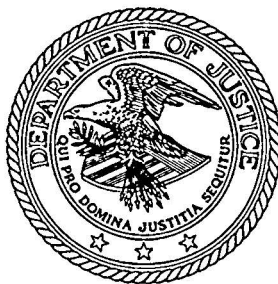
This letter should be reproduced and distributed to all active legal instructors assigned to your office and its contents brought to the attention of investigative personnel.

NOTE: Letter alerts each field office to a significant U.S. Court of Appeals decision ordering telephone company to assist law enforcement in tracing calls.

JCF

APPROVED:	Adm. Serv. _____	Legal Coun. _____
Director _____	Crim. Inv. _____	Plan. & Insp. _____
Assoc. Dir. _____	Fin. & Pers. _____	Ident. _____
Dep. AD Adm. _____	Intell. _____	Rec. Mgmt. _____
Dep. AD Inv. _____	Laboratory _____	Tech. Servs. _____
		Training _____
		Public Affs. Off. _____

United States Attorneys Bulletin



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Department of Justice, Washington, D.C.*

*let prep SAC, Albany
99B1/may
12/6/77*

VOL. 25

NOVEMBER 11, 1977

NO. 23

UNITED STATES DEPARTMENT OF JUSTICE

80-789-148

ENCLOSURE

TABLE OF CONTENTS

	<u>Page</u>
COMMENDATIONS	499
POINTS TO REMEMBER	
UNITED STATES ATTORNEY APPOINTMENT	501
UNITED STATES ATTORNEYS' MANUAL--BLUESHEETS	501
UNITED STATES ATTORNEYS' MANUAL---TRANSMITTALS	503
CASENOTES	
Civil Division	
Military Habeas Corpus: Reenlistment Bonuses <u>Borschowa v. Crayton</u>	505
Social Security Act; SSI Benefits <u>DeLao v. Califano</u> ; <u>Ferguson v. Califano</u> ; <u>White v. Califano</u>	505
National Housing Act; Construction Retainages <u>Spring Construction Co. v. Harris</u>	506
National Traffic and Motor Vehicle Safety Act; Safety Defect Recalls <u>U. S. v. General Motors Corp.</u>	506
SELECTED CONGRESSION AND LEGISLATIVE ACTIVITIES	509
APPENDIX: FEDERAL RULES OF CRIMINAL PROCEDURE	517
These pages should be placed on permanent file, by Rule, in each United States Attorney's office Library.	
Citations for the slip opinions are available on FTS 739-3754.	
APPENDIX: FEDERAL RULES OF EVIDENCE	521
These pages should be placed on permanent file, by Rule, in each United States Attorney's office Library.	
Citations for the slip opinions are available on FTS 739-3754.	

VOL. 25

NOVEMBER 11, 1977

NO. 23

COMMENDATIONS

Assistant United States Attorney [redacted] Northern District of Texas, has been commended by Clarence M. Kelley, Director, Federal Bureau of Investigation, for his outstanding effort in the successful prosecution of two white-collar crime cases, United States v. Wilson and United States v. McCord, in which seven defendants who defrauded investors of over \$1 million were convicted.

Assistant United States Attorney [redacted] Southern District of New York has been commended by [redacted] Executive Assistant, Criminal Division, for his fine effort in effecting a \$50,000 appearance bond forfeiture judgment against Argonaut Insurance Company, surety in the case United States v. Robinson.

Assistant United States Attorney [redacted] Southern District of New York, has been commended by Clarence M. Kelley, Director, Federal Bureau of Investigation, for his outstanding work in the successful prosecution of [redacted]
[redacted]

Assistant United States Attorney [redacted] District of South Carolina, has been commended by [redacted] Postal Inspector in Charge, United States Postal Service, for his excellent work in the successful prosecution of a case involving violation of the Federal mail fraud statutes. The prosecution, which included three lengthy jury trials, concluded with the conviction of a former employee of Southern Railway Company and 3 other defendants for conspiring in a scheme to defraud the Company of an estimated \$42,000.

Assistant United States Attorney [redacted] Western District of Pennsylvania, has been commended by Anthony J. Carmona, Special Agent in Charge, United States Secret Service, for his professional work in the successful prosecution of a United States Treasury check forgery case.

Assistant United States Attorney [redacted] Southern District of Iowa, has been commended by Clarence M. Kelley, Director, Federal Bureau of Investigation, for his excellent work in the successful prosecution of a case in which two defendants were convicted of armed robbery following a difficult three week trial.

VOL. 25

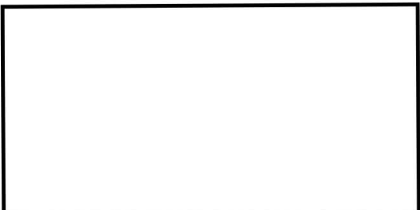
NOVEMBER 11, 1977

NO. 23

POINTS TO REMEMBER

UNITED STATES ATTORNEY APPOINTMENTS

The following Presidentially-appointed United States Attorneys have entered on duty. The Executive Office staff takes this opportunity to extend its hearty welcome.

<u>DISTRICT</u>	<u>UNITED STATES ATTORNEY</u>	<u>ENTERED ON DUTY</u>	
Iowa, N.		11/10/77	b6
Michigan, W.		11/8/77	b7c
Montana		11/7/77	

(Executive Office)

* * *

UNITED STATES ATTORNEYS' MANUAL--BLUESHEETS

No Bluesheets have been sent to press in accordance with USAM 1-1.550 since the last issue of the Bulletin.

(Executive Office)

* * *

UNITED STATES ATTORNEYS' MANUAL--TRANSMITTALS

The following United States Attorneys' Manual Transmittals have been issued to date in accordance with USAM 1-1.500. This monthly listing may be removed from the Bulletin and used as a check list to assure that your Manual is up to date.

Transmittal Affecting Title	Transmittal No. / Date Mo/Day/Yr	Date of Text	Contents
1	1 8/20/76	8/31/76	Ch. 1,2&3
	2 9/3/76	9/15/76	Ch.5
	3 9/14/76	9/24/76	Ch.8
	4 9/16/76	10/1/76	Ch.4
	5 2/4/77	1/10/77	Ch.6,10&12
	6 3/10/77	1/14/77	Ch.11
	7 6/24/77	6/15/77	Ch.13
2	1 6/25/76	7/4/76	Ch. 1 to 4
	2 8/11/76	7/4/76	Index
3	1 7/23/76	7/30/76	Ch.1 to 7
	2 11/19/76	7/30/76	Index
4	1 1/3/77	1/3/77	Ch.3 to 15
	2 1/21/77	1/3/77	Ch.1 & 2
	3 3/15/77	1/3/77	Index
5	1 2/4/77	1/11/77	Ch.1 to 9
	2 3/17/77	1/11/77	Ch.10 to 12
	3 6/22/77	4/5/77	Revisions to Ch. 1 - 8

6	1	3/31/77	1/19/77	Ch.1 to 6
	2	4/26/77	1/19/77	Index
7	1	11/18/76	11/22/76	Ch.1 to 6
	2	3/16/77	11/22/76	Index
8	1	1/4/77	1/7/77	Ch.4 & 5
	2	1/21/77	9/30/77	Ch.1 to 3
	3	5/13/77	1/7/77	Index
	4	6/21/77	9/30/76	Ch.3 (pp 3-6)
9	1	1/12/77	1/10/77	Ch.4,11,17,18, 34,37,38
	2	1/15/77	1/10/77	Ch.7,100,122
	3	1/18/77	1/17/77	Ch.12,14,16, 40,41,42,43
	4	1/31/77	1/17/77	Ch. 130 to 139
	5	2/2/77	1/10/77	Ch.1,2,8,10,15, 101,102,104, 120,121
	6	3/16/77	1/17/77	Ch.20,60,61,63, 64,65,66,69,70, 71,72,73,75,77, 78,85,90,110
	7	9/8/77	8/1/77	Ch. 4 (pp 81-129) Ch. 9, 39

(Executive Office)

* * *

CIVIL DIVISION
Assistant Attorney General Barbara Allen Babcock

Borschowa v. Crayton, _____ F.2d _____ (C.A. 9, Nos. 76-2370 & 76-2438, decided October 13, 1977). DJ 145-6-1575.

Military Habeas Corpus: Reenlistment Bonuses.

The Ninth Circuit has just vacated a district court order, which directed the Navy to release a serviceman on a rescission of contract theory. The district court had held that the Navy breached a contractual obligation to award the serviceman a particular level of "variable reenlistment bonus" payments in return for the serviceman's agreement to extend his enlistment. While our appeal was pending, the Supreme Court decided that the Navy regulations governing the award of the "variable reenlistment bonus" were void (United States v. Larionoff). Accordingly, we advised the Ninth Circuit that the serviceman was correct in his contention that the Navy did not pay him the proper "variable reenlistment bonus," but we argued that the Navy's obligation to pay the proper amount was statutory and not contractual, and that the serviceman's only remedy was in damages. The Ninth Circuit agreed with both arguments, vacated the district court's order, and remanded with instructions that the serviceman be awarded damages.

Attorneys: [redacted] (Civil Division).
FTS 739-3389; and [redacted]
(Civil Division), FTS 739-5325.

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DeLao v. Califano; Ferguson v. Califano; White v. Califano
(Consolidated), _____ F.2d _____ (C.A. 9, Nos. 76-1365, 75-2633, 75-2987, 76-2756). DJ 181-8-11 & 181-44-1.

Social Security Act; SSI Benefits.

Under the Supplemental Security Income (SSI) Program, enacted in 1972, Congress provided for the automatic entitlement to federal benefits, commencing on January 1, 1974, of needy state disability recipients who had been receiving benefits prior to July, 1973. An amendment to the statute permitted those receiving state benefits after June, 1973 to be paid presumptive federal benefits only until a determination of disability was made under federal standards or the end of 1974, whichever came first. In these suits which inter alia charged that the Secretary's failure in some instances to afford pretermination hearings

before 1974 amounted to a violation of due process, the Court held that any property interests the plaintiffs might have had in the federal benefits terminated at the close of 1974. The Court also held that payment of retroactive benefits was barred by sovereign immunity.

Attorneys: [redacted] (Civil Division),
FTS 739-4792; and [redacted]
(formerly of the Civil Division).

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Spring Construction Company v. Harris, ____ F.2d ____
(C.A. 4, No. 76-2399, decided September 29, 1977).
DJ 145-17-440.

National Housing Act; Construction Retainages.

The owner-mortgagor of multifamily housing project insured by HUD under the National Housing Act defaulted on its mortgage loan before "final closing" of the construction phase of financing. Upon paying the mortgagee's insurance claim, HUD acquired all outstanding escrow accounts under the project, including an account containing 10% construction "holdbacks," i.e., a 10% retention of the monthly sums (costs plus profits) owing to the contractor of the project which, under the contract between HUD and the mortgagor, are only released to the mortgagor for payment-over to the contractor after the construction loan has been closed. The Fourth Circuit in this case has upheld the contractor's right to sue HUD directly to recover the retainages despite the absence of a contractual agreement between HUD and the contractor, adopting the theory endorsed by the District of Columbia Circuit in Trans-Bay Engineers, Inc. v. Hills, 551 F.2d 370 (1976), that the contractor is a party creditor-beneficiary of the mortgagor. The Fourth Circuit moreover expanded the holding of Trans-Bay in ruling that, under the special circumstances at hand, the contractor's recovery was not barred by its failure to complete construction of the project prior to the mortgagor's default.

Attorney: Robert Richardson (Civil Division),
FTS 739-3486.

United States v. General Motors Corp., ____ F.2d ____
(C.A.D.C., Nos. 76-1744 & 1745, decided October 14, 1977). DJ 145-18-30.

National Traffic and Motor Vehicle Safety Act; Safety Defect Recalls.

The National Highway Traffic Safety Administrator determined that carburetors installed in certain 1965 and 1966 General Motors cars contained a "defect which relates

to motor vehicle safety" and therefore ordered GM to notify owners of the potential danger. The faulty carburetors had resulted in numerous engine fires. GM did not comply and brought suit to nullify the order; the Government brought suit to enforce the order and impose a civil penalty. The district court granted summary judgment for the Government and fined GM \$400,000. The D.C. Circuit has affirmed, rejecting GM's argument that a reduction in the risk of future carburetor failures, because of the age of the cars, raised a material question of fact as to whether the defect related to motor vehicle safety. The court of appeals remanded, however, for briefing and argument on the proper amount of the fine.

Attorney: [REDACTED] (Civil Division),
FTS 739-5325.

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OFFICE OF LEGISLATIVE AFFAIRS
Assistant Attorney General Patricia M. Wald

SELECTED CONGRESSIONAL AND LEGISLATIVE ACTIVITIES

OCTOBER 18 - NOVEMBER 1, 1977

Federal Criminal Code Reform. On October 25, 26 and 31 the Senate Judiciary Committee continued to discuss and debate amendments to S. 1437, the Criminal Code Reform Act, but did not complete action on the bill. Substantial progress was made. One amendment which was accepted would establish the sanction against possession of one ounce or less of marihuana as a civil fine of up to \$100. The House Judiciary Subcommittee on Criminal Justice has indicated plans for hearings in December.

Prisoner Transfer Legislation. On Tuesday, October 25, the House passed S. 1682, the Department's prisoner transfer legislation. The vote was 400 to 15. S. 1682 previously passed the Senate on September 21. This action cleared the measure for Executive approval which occurred October 28.

Associate Attorney General. On October 18 the House passed and cleared for the President S. 2089, to establish the position of Associate Attorney General. With the assistance of OMB and the White House staff, the bill was approved the next day (October 19) and the nomination of Mr. Egan was submitted the same day. A confirmation hearing was held October 26.

Magistrates. The House Judiciary Subcommittee on Courts, Civil Liberties and the Administration of Justice met informally on October 17 to discuss H.R. 7493, the Administration's proposal to improve access to the Federal courts by enlarging the civil and criminal jurisdiction of United States magistrates. On the basis of this discussion, cognizant subcommittee staff members predict that the bill will be reported out of the subcommittee before the end of this session of Congress, with full Judiciary Committee action to follow early in the next session. Although we can expect differences of opinion within the subcommittee on the specifics of the bill, Congressmen Kastenmeier and Railsback are clearly determined to push legislation to expand the magistrate's civil and criminal jurisdiction. The only subcommittee members who appear to be against the bill in principle at this point are Congressmen Drinan and Ertel. The subcommittee is scheduled to markup the bill on November 2 and 3.

ERA. On November 1, AAG [] will testify before the House Judiciary Subcommittee on Civil and Constitutional Rights concerning an extension of the period for ratifying the Equal Rights Amendment. Representative Holtzman has introduced a bill, H.J. Res. 638, which would extend the ratification period for an additional seven years.

Attorneys' Fees. Our report in opposition to the Senate's attorneys' fees amendment, included as part of the Legal Services Corporation Act Amendments, was transmitted to the Hill on October 25, 1977. We are hopeful that the attorneys' fees amendment will be eliminated in conference for lack of germaneness. An additional ground for objection to the provision is that it has not been studied by either House of Congress and, indeed, Chairman Kastenmeier has already scheduled hearings on the subject of attorneys' fees in his Judiciary Subcommittee on Courts, Civil Liberties and the Administration of Justice for November 16-17.

Deregulation of the Trucking Industry. On October 27 Assistant Attorney General Shenefield of Antitrust presented a strong statement to the Senate Judiciary Subcommittee on Antitrust and Monopoly on the need for reform of the regulations governing the motor carrier industry. He indicated that the final form of the Administration's proposals for trucking deregulation has not yet been determined, but that the President has stated his commitment to "substantial deregulation" of surface transportation, including trucking.

Omnibus Judgeship Legislation. The House Judiciary Committee held markup sessions on October 25 and 26 on the omnibus judgeship bill, H.R. 7843. As reported out of the Judiciary Subcommittee on Monopolies and Commercial Law, the bill provides for 81 additional district court judgeships and 34 new circuit court judgeships. The Senate-passed version of the omnibus judgeship legislation, S. 11, provides for 113 new district court judgeships and 35 additional circuit court judgeships. During the House Judiciary markup on October 26, Congressman Drinan and several other members proposed an amendment to H.R. 7843 which would have increased the number of new judgeships to the level contained in S. 11. Congressman Rodino, with the solid backing of his Monopolies and Commercial Law Subcommittee and other supporters on the full committee, was able to defeat the Drinan amendment. A number of additional proposed amendments, dealing with increasing the number of new judgeships, will be considered on November 1, when the committee hopes to complete action on the bill. In addition, Congressman Seiberling will offer an amendment which would require the President to establish guidelines for the merit selection of district court judges. Also, Congressman Edwards of California

will offer an amendment noting that women hold only 1% of all federal judgeships and blacks only 4%, and recommending that the President give "due consideration" to the appointment of minorities to the federal bench. Finally Congressmen Wiggins and Flowers, who previously offered an amendment to H.R. 7843 which would have reorganized the Fifth Circuit into two separate circuits, have indicated that they will not raise the Fifth Circuit issue again.

Accommodations for Judges. On October 26 the House Judiciary Committee favorably reported H.R. 2770, a bill which we support and which would permit flexibility in assignment of accommodations for judges of the courts of appeals of the United States. The sentiment for the Senate companion bill, S. 653, is favorable in the Senate Judiciary Committee so the prospects for the measure are good.

Federal Tort Claims Act Amendments. The House Judiciary Subcommittee on Administrative Law and Governmental Relations plans to hold hearing in December on H.R. 9219, our proposal to protect federal employees from suits for money damages arising out of the performance of their duties. The Senate Judiciary Subcommittee on Citizens and Shareholders Rights and Remedies has indicated that it will also hold hearings on S. 2117, the Senate companion bill, in December. We are meeting with interested groups and agencies to explain the bill and to attempt to counteract or accommodate any problems they perceive in the measure.

Indochinese Refugees. On October 18 the House agreed to the Senate amendments to H.R. 7769, to adjust the status of Indochinese refugees and to extend the Indochinese Migration and Refugee Assistance Act of 1975, thus clearing the measure for the President.

Civil Rights Improvements Act. AAG [] was originally scheduled to testify before the Senate Judiciary Subcommittee on the Constitution on S. 35, the Civil Rights Improvements Act of 1977, on October 27. However, the hearings were postponed and will be rescheduled for some time in the next session. Our positions on this complex bill are the result of detailed consideration of the legislation by the Civil, Criminal and Civil Rights Divisions and the Offices of the Solicitor General, Legal Counsel, Improvements in the Administration of Justice, and Legislative Affairs. The bill deals with the amenability of state and local governments to suit under 42 U.S.C. 1983; specific standards of government liability; the rule of Younger v. Harris; extension of Younger to private and state-initiated

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civil proceedings and to after-filed criminal proceedings; exhaustion of remedies, abstention and collateral estoppel; due process protection of reputation; and prosecutorial immunity.

Special Prosecutor. On October 19 the House Judiciary Subcommittee on Criminal Justice completed markup and approved a clean bill in lieu of H.R. 2835, the Special Prosecutor bill, after defeating by a vote of 4 to 3 an amendment by Congresswoman Holtzman to have a special prosecutor when three or more members of Congress are involved in the same case or when specified members of the leadership are involved. It is doubtful that the full committee will consider the measure this session in view of the short time left and difficulties which are being encountered in marrying up the financial disclosure provisions of H.R. 1.

Diversity of Citizenship Jurisdiction. On October 19, AAG [redacted] testified on diversity of citizenship jurisdiction before the House Judiciary Subcommittee on Courts, Civil Liberties and the Administration of Justice. [redacted] testimony related the Department's positions that we neither support nor oppose the total abolition of diversity of citizenship jurisdiction between citizens of different states; that we would not oppose retention of diversity of citizenship jurisdiction for aliens; and that we do not oppose elimination of the \$10,000 jurisdictional limit in federal question cases.

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On October 20 the Subcommittee voted to report favorably to the full Committee a clean bill on diversity, H.R. 9622. The bill would abolish diversity of citizenship jurisdiction between citizens of different states and would raise to \$25,000 the jurisdictional limit in alien diversity cases. The bill would also eliminate the jurisdictional amount limitation in federal question cases, 28 U.S.C. 1331.

Arbitration. On October 20 we submitted to Congress our legislative proposal on arbitration of specific civil actions in U.S. district courts.

Child Pornography Legislation. The bill reported out by the House Judiciary Committee to address the problem of sexual abuse of children, H.R. 8059, passed the House on October 25. The House had already passed child pornography legislation in the form of a floor amendment by Congressman Kildie to H.R. 6693, a bill to extend the Child Abuse Prevention and Treatment Act. In addition, the comparable Senate bill, S. 1585, passed the Senate on October 10. The Kildie amendments to H.R. 6693 and S. 1585 both contain a provision which would authorize the prosecution of distributors and sellers of films and printed

materials depicting actual or simulated sexual conduct involving children without a requirement that the material be proven obscene. Cognizant members of both the House and Senate Judiciary Committees and Department representatives who have testified on this subject, have expressed serious doubts about the constitutionality of this aspect of the bills. H.R. 8059 does not have a comparable provision.

Tax Return Disclosure. H.R. 6715, a bill which makes technical corrections to the Tax Reform Act of 1976, was amended in Committee to reflect in part the position of the Attorney General in his February 24, 1977 Ways and Means Oversight Subcommittee testimony. As passed by the House on October 17, H.R. 6715 would amend sections 7213 and 7217 of the Code to provide that civil liability for an unauthorized disclosure does not attach when the disclosure is made on the basis of a good faith, but erroneous, interpretation of the disclosure provisions of the Code. The Attorney General had recommended liability only for a willful violation.

NOMINATIONS

On October 17, 1977, the Senate received the following nomination:

Pierre N. Leval, to be U.S. District Judge for the Southern District of New York

On October 25, 1977, the Senate received the following nominations:

David T. Wood, to be U.S. Attorney for the District of Guam;

Elsijane Trimble Roy, to be U.S. District Judge for the Eastern and Western Districts of Arkansas;

Gerald D. Fines, to be U.S. Attorney for the Southern District of Illinois;

On October 19, 1977, the Senate received the following nomination:

Michael J. Egan, of Georgia, to be Associate Attorney General

On October 26, 1977, the Senate received the following nominations:

Benjamin J. Malcolm, of New York, Cecil M. McCall, of Georgia, and Robert D. Vincent, of Oklahoma, each to be a

Commissioner of the U.S. Parole Commission;
[redacted] to be U.S. Attorney for the District
of Nevada.

On October 27, 1977, the Senate received the following
nominations:

[redacted] to be U.S. Attorney for the District
of Alaska;

[redacted] to be U.S. Attorney for the Western
District of Oklahoma;

CONFIRMATIONS:

On October 20, 1977, the Senate confirmed the following
nominations:

[redacted] to be U.S. District Judge for the
Eastern District of New York;

[redacted] to be U.S. Attorney for the District
of Utah;

[redacted] to be U.S. Attorney for the District
of New Jersey;

[redacted] to be U.S. Attorney for the District
of Montana;

[redacted] to be U.S. Attorney for the Western
District of Michigan;

On October 29, 1977, the Senate confirmed the following
nominations:

[redacted] of Tennessee, to be U.S. Circuit Judge
for the 6th Circuit;

Pierre N. Leval, to be U.S. District Judge for the South-
ern District of New York.

NEW PUBLIC LAWS:

H.R. 5742, authorizing funds for fiscal years 1978-1980
for the Department of Justice to carry out its drug abuse law
enforcement regulatory responsibilities. Signed October 18, 1977,
(Public Law 95-137).

H.R. 3, to strengthen Government capability to detect,
prosecute, and punish fraudulent activities under the Medicare
and Medicaid programs. Signed October 25, 1977 (Public Law
95-142).

S. 1682, to implement treaties between the United States
and Mexico and Canada (Ex. D and H, respectively, 95th Cong.,
1st Sess.) calling for the transfer of offenders to or from the
countries. Signed October 28, 1977 (Public Law 95-144).

H.R. 7769, to adjust the status of Indochina refugees, and to extend the Indochina Migration and Refugee Assistance Act of 1975. Signed October 28, 1977 (Public Law 95-145).

FEDERAL RULES OF CRIMINAL PROCEDURE

Rule 14. Relief From Prejudicial Joinder.

Defendants were convicted on a multicount indictment charging extortionate extension of credit, the use of extortionate means to collect credit and conspiracy. On appeal, defendant Gentile claimed in part that it was error to refuse him severance under Rule 14 because his codefendant's pro se defense deprived him of a fair trial.

The Court of Appeals for the Second Circuit upheld the discretionary decision by the trial judge to deny severance. Noting the increasing difficulties encountered with pro se defendants, the court outlined certain precautions that should be taken to minimize the potential prejudice to codefendants. The court recommended precautions such as: instructing the pro se defendant that he will be barred from first person commentary on matters not in evidence or solely within his personal knowledge; that an attorney be retained to advise and assist the defendant during trial; that frequent cautionary instructions be issued to the jury that nothing the defendant says while acting as an attorney is evidence; that the defendant be warned of the court's unwillingness to allow his defense to deprive his codefendant of a fair trial; and that the pro se defendant be instructed to avoid reference to codefendants without prior permission from the court.

(Affirmed.)

United States v. Frank Sacco and Benjamin Gentile, ____ F.2d ____, Nos. 76-1373, 1374 (2nd Cir., October 5, 1977).

Rule 41. Search and Seizure.

Michigan Bell Telephone Company sought to quash a District Court order authorizing and ordering Michigan Bell to trace incoming calls on two telephones. Sophisticated techniques utilized by the gambling operators had thwarted the Government's previous use of wire taps and pen registers to effectuate their investigation.

The Sixth Circuit held that the same legal principles which are applied to pen registers would be applicable with respect to tracing equipment. Both devices do not fall within the provisions of Title III of the Omnibus Crime Control and Safe Streets Act since neither device actually hears or monitors conversations and thus does not accomplish an "aural acquisition." The court in affirming the two orders entered by the district court, concluded the orders were proper under Rule 41. The court reasoned that since Rule 41 authorizes the issuance of search warrants for "property" that constitutes evidence of a crime; "common sense dictates that, as technology makes possible the seizure of intangibles, the courts should not limit the scope of Rule 41, but rather [should] interpret the rule so as to effectuate its purpose." The Court also stated that it had the authority to require the telephone company to actually perform the manual tracing operations under the All Writs Act, 28 U.S.C. § 165(a).

(Affirmed.)

Michigan Bell Telephone Company v. United States, _____
_____, No. 76-2202-03 (6th Cir., October 7, 1977).

F.2d

*also
was cited
in
Curtis
Report*

FEDERAL RULES OF EVIDENCE

Rule 609(a). Impeachment by Evidence of Conviction
of Crime, General Rule.

Defendant, who was convicted of bank robbery appealed, contending in part that the trial court committed reversible error when it denied him the right to impeach a government witness. The defendant was denied the opportunity to cross-examine a government witness about a prior misdemeanor marijuana conviction. The Ninth Circuit found within the legislative history of Rule 609(a) an unequivocal intent to limit non felony offenses within the purview of Rule 609(a) to those involving "some element of deceit, untruthfulness, or falsification bearing on the accused's propensity to testify truthfully." The Court, noting defendant's reliance on United States v. Millings, 407 F.Supp. 566 (1976), indicated the District of Columbia Court erred in it's finding of Congressional intent to hold narcotics violations as offenses involving dishonesty and false statement.

(Affirmed.)

United States v. Robert Roy Thompson, ____ F.2d ____,
No. 77-1238 (9th Cir., August 22, 1977).

STEP-BY-STEP SYSTEM
AUXILIARY LINE CIRCUIT
TO PERMIT CUSTOMER CONTROL OF
LOCKUP OF INCOMING CALL TO FACILITATE TRACING

1. PURPOSE

- 1.1 To permit the customer to lock up an incoming call by dialing the digit "4" to facilitate tracing of the call.

2. WORKING LIMITS

- 2.1 None.

3. FUNCTIONS

- 3.1 To permit the customer to lock up an incoming call by dialing the digit "4".
- 3.2 To permit releasing of the locked up call by operating a key in the central office.
- 3.3 To trigger an alarm in the central office when a call has been locked up if connected to an alarm circuit.

4. CONNECTING CIRCUITS

- 4.1 Standard Connector Circuits.
- 4.2 Standard Selector Circuits.
- 4.3 Standard Line Finder Circuits.
- 4.4 Alarm Circuit as specified.

5. DESCRIPTION OF OPERATION

- 5.1 On answering an incoming call battery and ground over the "T1" and "R1" leads from the connector operates relay (A) which in turn operates relay (B).
- 5.2 To lock up the call, the called party dials the digit "4".
- 5.3 Relays (A) and (A1) follow the dial pulses. On the first pulse relay (A) releases. Relay (A) released operates relays (A1) and (C). Relay (C) being slow release holds operated over the dial pulses. Relay (A1) operated operates relay (W).

5. DESCRIPTION OF OPERATION (Cont.)

5.4 After the first pulse, relay (A) reoperates. Relay (A) operated releases relay (A1). Relay (A1) released operates relay (Z), which locks operated under control of operated relays (W) and (C). Relay (Z) operated operates relay (1) which locks operated under control of operated relay (C).

5.5 On the second pulse relay (A) releases and reoperates relay (A1). Relay (A1) operated releases relay (W). Relay (W) released transfers the holding path of relay (Z) to the operated relay (A1).

5.6 After the second pulse relay (A) reoperates and releases relay (A1). Relay (A1) released releases relay (Z). Relay (Z) released, with relays (C) and (1) operated, operates relay (2).

5.7 On the third pulse relay (A) releases and reoperates relay (A1). Relay (A1) operated reoperates relay (W).

5.8 After the third pulse relay (A) reoperates and releases relay (A1). Relay (A1) released reoperates relay (Z) which locks operated under control of the operated relays (W) and (C). Relays (Z), (2) and (C) operated operate relay (3).

5.9 On the fourth pulse relay (A) releases and reoperates relay (A1). Relay (A1) operated releases relay (W). Relay (W) released transfers the holding path of relay (Z) to the operated relay (A1).

5.10 After the fourth pulse relay (A) reoperates and releases relay (A1). Relay (A1) released releases relay (Z). Relay (Z) released with relays (3) and (C) operated operates relay (CO) which locks operated under control of the "REL" key.

5.11 Relay (CO) operated opens the "T," "R" and "S" leads toward the called party's telephone, bridges a 500 ohm resistor (A) across the "T1" and "R1" leads to the output of the connector circuit, closes the "AL" and "ALL" alarm leads, and releases relay (A).

5.12 Relay (A) released releases relay (B) which in turn releases relay (C). Relay (C) released releases relays (1), (2) and (3).

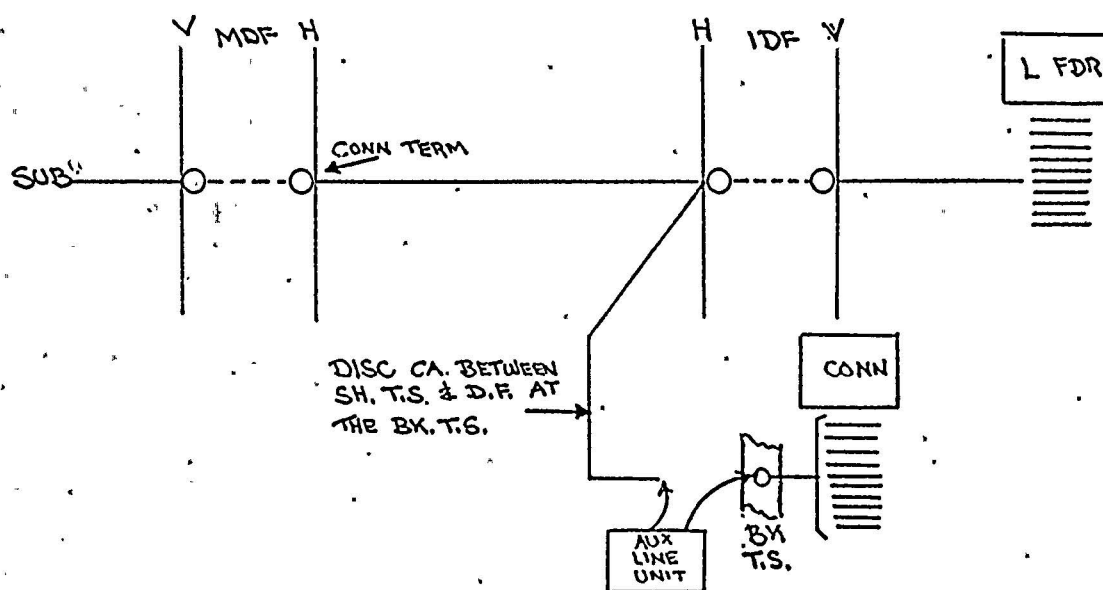
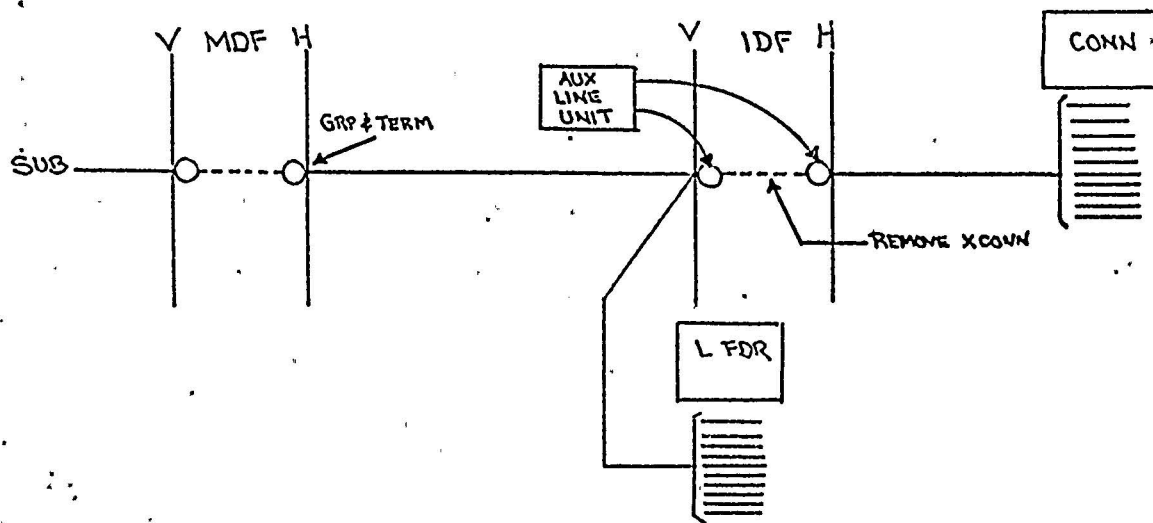
5.13 The (T) diode and (T) resistor of Fig. 2 are connected to the test jack of the connector. When the called party answers, reverse battery is fed from the connector circuit back to the calling party. The (T) diode of Fig. 2 is polarized in such a direction that it acts as a conductor to this reverse battery and the switch train ahead of the connector circuit is locked up through the 2,200 ohm (T) resistor and is no longer under control of the calling party. With the operation of relay (CO), Par. 5.11, the called party is disconnected from the connector circuit but the connector is locked up through the 500 ohm resistor (A) bridged across the "T1" and "R1" leads. The called party is now free to make outgoing calls.

5. DESCRIPTION OF OPERATION (Cont.)

5.14 Operation of the "REL" key in the central office releases relay (CO). Relay (CO) released removes the 500 ohm bridge from the "T1" and "R1" leads releasing the connector switch. The connector switch released reverses battery back to the calling line so that diode (T) no longer conducts current. With diode circuit effectively open the switch train ahead of the connector switch releases provided that the calling party has replaced the receiver on the hook. The circuit is now back to normal.

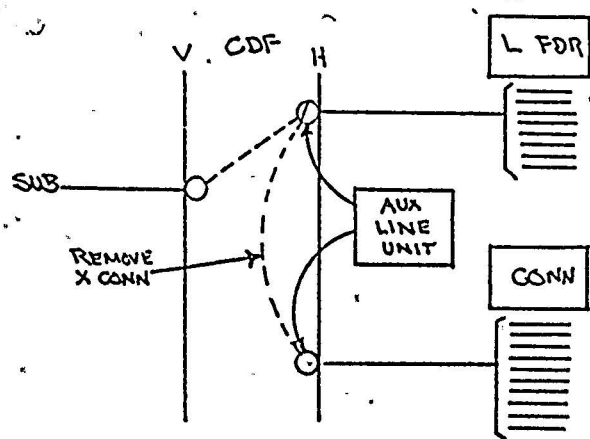
6. HOLDING SWITCH TRAIN IN DISTANT OFFICE

6.1 If it is necessary to ~~hold the switch train~~ at a distant office connect the Trap Plugs of Fig. 2 to the test jacks of each ~~out-~~going repeater.



NOTES:

1. THE ARRANGEMENTS SHOWN IN FIG 2 MAY BE USED IN ANY OFFICE AND MUST BE USED IN AN OFFICE WHERE THE CONNECTOR TERMS APPEAR ON THE HMDF



TYPICAL ARRANGEMENTS
FOR ASSOCIATING THE
AUXILIARY LINE UNIT
WITH A SUBSCRIBER
LINE

MGS 10-3-63

93024-31

STEP BY STEP SYSTEM
AUXILIARY LINE CIRCUIT
TO PERMIT CUSTOMER CONTROL &
LOCKUP OF INCOMING CALL
TO FACILITATE TRACING

MADE FROM ILLINOIS
BELL TEL. CO. DWG.
C-5339-11 ISSUE 7

CONNECTICUT

APPROVED: *MCS*

DRAWN BY:

CHECKED BY: *SA*

ENGINEER: *MCS*

THE SO. NEW ENG. TEL. CO.

ENGR. DEPT.

93024-31

S

93024-01

STEP-BY-STEP SYSTEM
AUXILIARY LINE CIRCUIT
TO PERMIT CUSTOMER CONTROL AND
LOCKUP TO INCOMING CALL TO FACILITATE TRACING

CONNECTICUT

APPROVED:

DRAWN BY:

CHECKED BY:

ENGINEER:

THE BELL SYSTEM ENGINEERING CO.

ENGR. DEPT.

MADE FROM ILLINOIS
BELL TEL. CO. DWG.
C-5339-01 ISSUE A

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93024-01

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